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Virtual Takings: The Coming Fifth Amendment Challenge to Net Neutrality Regulation

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VIRTUAL TAKINGS: THE COMING FIFTH AMENDMENT CHALLENGE TO NET NEUTRALITY REGULATION

Daniel A. Lyons

Abstract: “Net neutrality” refers to the principle that broadband providers should not limit the content and applications available over the Internet. Long a rallying cry of techies and academics, it has become one of the central pillars of the Obama Administration’s telecommunications policy. The Federal Communications Commission’s efforts to regulate the “onramp to the Internet” have attracted significant attention from the telecommunications industry and the academic community, which have debated whether the proposed restrictions violate broadband providers’ First Amendment rights. But there is an additional constitutional implication of net neutrality that has not yet been sufficiently addressed in the scholarly literature: the Takings Clause.

This article argues that under the Supreme Court’s Takings Clause jurisprudence, the Commission’s proposed net neutrality rules effect a permanent physical occupation of private broadband networks and therefore take broadband providers’ property without just compensation. In essence, net neutrality would grant Internet content providers a permanent virtual easement across privately-owned broadband networks to deliver content to end-users. It thus would deprive broadband providers of the right to exclude others from their networks—a right that the Court’s takings jurisprudence has repeatedly dubbed “one of the most essential sticks in the bundle of rights that are commonly characterized as property.” At the very least, the Takings Clause issue raises a serious constitutional question regarding the Commission’s authority to adopt net neutrality regulations without clear authority from Congress to do so. The Commission should therefore seek explicit Congressional approval before promulgating net neutrality rules, rather than continuing to freelance at the periphery of its regulatory authority.

TABLE OF CONTENTS

INTRODUCTION.....	1
I. BROADBAND DEVELOPMENT AND THE NET NEUTRALITY DEBATE.....	3
<i>A. The Telecommunications Act of 1996</i>	3
<i>B. The Growth of Broadband</i>	5

C. <i>The “Open Access” Debate</i>	6
D. <i>Origins of Net Neutrality</i>	8
E. <i>Lurching Toward a Net Neutrality Policy</i>	12
F. <i>The Commission’s Proposed Rules</i>	14
II. NET NEUTRALITY THROUGH THE LENS OF THE TAKINGS	
CLAUSE.....	18
A. <i>Overview of Regulatory Takings Jurisprudence</i>	18
B. <i>Net Neutrality as a Per Se Taking Under Loretto</i>	21
1. <i>Net Neutrality as Permanent Physical Occupation of</i>	
<i>Broadband Networks</i>	21
2. <i>Fifth Amendment Protection of Electronic Networks..</i>	23
3. <i>The Cablevision Decision</i>	26
C. <i>Net Neutrality as a Regulatory Taking Under Penn</i>	
Central.....	27
1. <i>Interference with Investment-Backed Expectations</i>	28
2. <i>Economic Impact</i>	29
3. <i>Character of the Government Action</i>	30
D. <i>Distinguishing Common Carriage and Public</i>	
<i>Accommodations</i>	31
1. <i>Common Carriage</i>	32
2. <i>Public Accommodations Rules</i>	36
III. RAMIFICATIONS FOR THE OPEN INTERNET INITIATIVE.....	38
IV. CONCLUSION.....	41

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*Daniel A. Lyons**

INTRODUCTION

Born in the nether world of law review articles and academic conferences, net neutrality has quickly matured to become one of the Obama Administration's defining telecommunications issues. The Federal Communications Commission has proposed rules to regulate what new Chairman Julius Genachowski has described as the "onramp" to the Internet: the privately-held telecommunications networks that connect individual consumers to the Internet's public servers.¹ Termed the "Open Internet Initiative," these proposed rules would limit the discretion of broadband providers such as Verizon, AT&T, and Comcast to regulate the terms of access to their networks by Internet content providers such as Google and Hulu.²

Proponents of net neutrality have long argued that such restrictions are necessary to prevent broadband providers from leveraging their market power to adversely affect Internet development and operation.³ Net neutrality opponents, however, have questioned the practical effects of such proposals and have argued that, for the most part, net neutrality seems to be a solution in search of a problem.⁴ Opponents also recognize that billions of dollars have been invested over the past decade to build a high-speed broadband network, and much more is still required to achieve the administration's goal of ubiquitous broadband access.⁵ Such investment is retarded by regulations that restrict broadband providers' ability to recover

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¹ See *In Re Preserving the Open Internet: Broadband Industry Practices*, Notice of Proposed Rulemaking, 24 FCC Rcd. 13064 (2009) (notice) (hereafter "Net Neutrality NOPR").

² *Id.*

³ See, e.g., Lawrence Lessig, *In Support of Network Neutrality*, 3 *I/S: A JOURNAL OF LAW AND POLICY FOR THE INFORMATION SOCIETY* 185 (2007); Tim Wu & Christopher S. Yoo, *Keeping the Internet Neutral? Tim Wu and Christopher Yoo Debate*, 59 *FED. COMM. L.J.* 575 (2007).

⁴ See, e.g., Wu and Yoo, *supra* note 3.

⁵ See, e.g., Julius Genachowski, *Broadband: Our Enduring Engine for Prosperity and Opportunity*, Prepared Remarks at NARUC Winter Conference, February 16, 2010 (available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296262A1.pdf) (announcing Commission goal of providing 100 megabits per second broadband access to 100 million homes by 2020).

these costs through enhanced services or tiered-access pricing. With the promulgation of the Commission's Open Internet Notice of Proposed Rulemaking,⁶ this debate has finally spilled over from the pages of law reviews and onto the docket of the government's chief telecommunications regulator, the Federal Communications Commission.

The net neutrality debate has also sometimes assumed a constitutional dimension, focusing primarily upon dueling First Amendment concerns. Net neutrality proponents highlight the right of consumers to send and receive virtual speech free of "censorship" by broadband providers, in the form of blocked or degraded transmission of certain internet applications or content.⁷ Others argue that net neutrality would infringe upon broadband providers' own First Amendment rights to speak and engage in editorial control of content distributed over their networks.⁸ While the Supreme Court has recognized First Amendment protection for network operators in similar contexts,⁹ it is unclear how these decisions apply in the net neutrality context.

But there is an additional constitutional limitation whose import has not been sufficiently addressed in the net neutrality literature: the Takings Clause. The Open Internet initiative would compel broadband providers to provide third parties access to their networks, and to do so on the same terms as the broadband providers' own proprietary content. Net neutrality thus deprives broadband providers of the right to exclude others from their networks—a right that the Court's takings jurisprudence has repeatedly dubbed "one of the most essential sticks in the bundle of rights that are commonly characterized as property."¹⁰ In essence, net neutrality grants content providers a permanent virtual easement across privately-owned broadband networks to deliver content to end-users. In other contexts, the Supreme Court has made clear that "a 'permanent physical occupation' has occurred" for Fifth Amendment purposes "where individuals are given a permanent and continuous right to pass to and fro" across private property.¹¹

⁶ See Net Neutrality NOPR, *supra* note 1.

⁷ See, e.g., Jack M. Balkin, Remarks at FCC Workshop on Speech, Democratic Engagement, and the Open Internet, December 15, 2009 (available at <http://balkin.blogspot.com/2009/12/remarks-at-fcc-workshop-on-speech.html>). As discussed *infra*, all parties agree on the need to block harmful content such as obscene material and spam. The net neutrality debate revolves around delivery of lawful content.

⁸ See, e.g., Randolph J. May, *Commentary: Net Neutrality Mandates: Neutering the First Amendment in the Digital Age*, 3 I/S: J.L. & POL'Y FOR INFO. SOC'Y 197, 203-04 (2007).

⁹ See *Turner Broadcasting Sys., Inc. v. FCC*, 520 U.S. 180 (1997) (*Turner II*); *Turner Broadcasting Sys., Inc. v. FCC* 512 U.S. 622 (1994) (*Turner I*) (holding that First Amendment protects cable operators' right of editorial control over content transmitted across their networks, but that statute requiring cable companies to carry certain local broadcast channels is content-neutral restriction that satisfies intermediate scrutiny).

¹⁰ See *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 433 (1982) (quoting *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979)); see also *Nollan v. Calif. Coastal Comm'n*, 483 U.S. 825, 831 (1987).

¹¹ *Nollan*, 483 U.S. at 832.

Net neutrality proponents may be correct that “[u]nder the First Amendment Congress can make both telephone and cable companies into common carriers who must take on all traffic” and therefore as a constitutional matter, “Congress can certainly require a much milder non-discrimination requirement like network neutrality.”¹² But “it is a separate question, however, whether an otherwise valid regulation so frustrates property rights that compensation must be paid.”¹³

This article argues that under the Supreme Court’s Takings Clause jurisprudence, the Commission’s proposed net neutrality rules likely effect a permanent physical occupation of private broadband networks and therefore constitute a per se taking of broadband providers’ property. Alternatively, net neutrality may constitute a regulatory taking under the *Penn Central* ad-hoc balancing test.¹⁴ If so, the Commission lacks the authority to adopt its proposed regulations because it cannot assure that just compensation will be paid to broadband providers. At the very least, the Takings Clause issue raises a serious constitutional question regarding the Commission’s authority to adopt net neutrality regulations *sua sponte*, particularly when combined with potential First Amendment issues and the D.C. Circuit’s recent skepticism regarding the Commission’s authority to regulate internet providers generally under Title I. Given this serious constitutional question, this article recommends that the Commission seek explicit Congressional authorization for its Open Internet initiative rather than continuing to freelance at the periphery of its ancillary Title I authority.

I. BROADBAND DEVELOPMENT AND THE NET NEUTRALITY DEBATE

Before examining the constitutional implications of the Commission’s recent foray into net neutrality, it is helpful to chart a brief history of the development of the broadband network and the advent of the net neutrality debate.

A. *The Telecommunications Act of 1996*

In one sense, the origins of net neutrality concerns lie in the Telecommunications Act of 1996,¹⁵ Congress’s attempt to overhaul the telecommunications industry to meet the anticipated challenges of the twenty-first century.¹⁶ At the time, the wire-based telecommunications industry was divided into two discrete “monoline” segments: wireline

¹² See Balkin, *supra* note 7.

¹³ *Loretto*, 458 U.S. at 425.

¹⁴ *Penn Central Trans. Co. v. City of New York*, 438 U.S. 104, 127-28 (1978).

¹⁵ Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, 56 (1996).

¹⁶ Daniel A. Lyons, *Technology Convergence and Federalism: Who Will Decide the Future of Telecommunications Regulation?*, 43 U. MICH. J. LAW REF. 383, 383-84 (2010).

telephone companies, which offered voice service as a common carrier over the publicly-switched telephone network under Title II of the Communications Act of 1934, and cable companies, which offered wire-based video service under Title VI of the Act.¹⁷

Before the 1996 Act, a quarter-century of regulatory policy had reinforced the sharp voice/video divide in the telecommunications industry. The Commission had enforced a general ban on cross-ownership of telephone and cable networks since 1970, with limited exceptions.¹⁸ The 1984 Cable Act expanded and reinforced this ban by generally prohibiting common carriers such as the local telephone companies from providing video programming over their networks.¹⁹ Similarly, most local telephone companies had received exclusive telephone franchises from states in exchange for rate regulation and universal service obligations, with the FCC's blessing.²⁰

The Telecommunications Act of 1996 sought to infuse the industry with competition at every level, in part by demolishing the artificial video/voice barrier and instilling "intermodal" competition between telephone companies and cable operators. The 1996 Act repealed the Cable Act's prohibition on the provision of video services over telephone lines.²¹ As Peter Huber notes, this provision came just in the nick of time: several federal courts had held that this prohibition violated the First Amendment rights of telephone companies, and the issue had been argued before the Supreme Court in December of 1995, where the general consensus was that the justices were likely to agree, perhaps unanimously.²² At the same time, the 1996 Act preempted all state and local laws that "prohibit or have the effect of prohibiting the ability of any entity to provide interstate or intrastate telecommunications service."²³ This provision eliminated state protection of local telephone monopolies and effectively allowed cable companies to enter the telephone business.

At the time, however, physical network constraints made intermodal competition seem more of a long-term aspiration than a realistically achievable goal. In particular, local telephone networks relied primarily upon twisted-pair copper wires. These wires were adequate for conveying voice conversations but lacked the speed and capacity necessary

¹⁷ See Communications Act of 1934, Pub. L. No. 416, 48 Stat. 1064, codified at 47 U.S.C. § 151 *et seq.*

¹⁸ See Application of Telcos, 21 FCC Rcd. at 307 (1970).

¹⁹ 47 U.S.C. § 533(b) (repealed 1996); see PETER W. HUBER *et al.*, THE TELECOMMUNICATIONS ACT OF 1996 SPECIAL REPORT 85 (1996).

²⁰ See HUBER, *supra* note 19, at 86.

²¹ *Id.* at 84.

²² *Id.* at 84-85. The adoption of the Telecommunications Act led the Court to dismiss the case as moot. *Id.*; see *US West, Inc. v. United States*, 48 F.3d 1092 (9th Cir. 1995), vacated and remanded, 516 U.S. 1155 (1996); *Chesapeake & Potomac Tel. Co. v. United States*, 42 F.3d 181 (4th Cir. 1994), vacated, 516 U.S. 415 (1996).

²³ 47 U.S.C. § 253(a).

to deliver consistent, high-quality video signals comparable to those of the cable company. By comparison, the coaxial cable deployed by cable companies had somewhat higher bandwidth than their telephone counterparts. So while technological challenges inhibited telephone companies' proposed expansion into video service, cable companies found it easier to expand in the other direction. By 2002, the cable industry had attracted approximately two million customers for phone service, suggesting that the 1996 Act's dream of intermodal competition could soon reach at least the voice segment of the communications market.²⁴

B. *The Growth of Broadband*

Intermodal competition was boosted by the advent of a third service that the 1996 Act treated almost as an afterthought:²⁵ Internet access. Residential internet access became commercially available in the mid-1990s.²⁶ End-users initially accessed the Internet through "narrowband" dial-up connections that transferred information at relatively slow speeds. In short, a dial-up end-user would use a computer modem to call a local telephone number controlled by an Internet Service Provider (ISP) such as America On-Line. ISP equipment would then convert that analog telephone call into an internet connection, allowing the end-user's computer to transmit and receive data.²⁷ But as consumers became more web-savvy and demanded more (and more intensive) internet applications, dial-up ISPs found themselves facing the same problem that stalled intermodal competition for video service: analog calls over twisted-pair copper wire simply lacked the capacity to meet consumers' growing appetites for bandwidth-intensive applications.

To satisfy this consumer demand, cable companies began to offer broadband service over their coaxial cable lines, which were capable of higher data transmission speeds than the legacy telephone company networks.²⁸ As cable modem service caught on, telephone companies

²⁴ See History of Cable Television, available at <http://www.ncta.com/About/About/HistoryofCableTelevision.aspx>.

²⁵ See Christopher Yoo, *Beyond Network Neutrality*, 19 Harv. J. L. & Tech. 1, 1 (2005) ("Having largely failed to take the Internet into consideration when enacting the Telecommunications Act of 1996, Congress is preparing to reenter the fray as it begins work on its second major overhaul of the communications laws in less than a decade.") (discussing then-recently proposed net neutrality legislation).

²⁶ See Michael J. Santorelli, *Rationalizing the Municipal Broadband Debate*, 3 I/S: A Journal of Law and Policy for the Information Society 43, 51 (2007). As Santorelli notes, AOL is often credited as the first company to offer mass-market dial-up internet access.

²⁷ See *id.* at 51; see also G. Keith Evans, *How Does Dialup Work?*, available at http://www.ehow.com/how-does_4570408_dial-up-work.html.

²⁸ See Santorelli, *supra* note 26, at 53. As Santorelli explains, coaxial cable is capable of transmitting both cable television signals and broadband signals at the same time over the same wire, by sending them at different frequencies. Equipment at the end-user's home (specifically, a cable set-top box and a cable modem) can distinguish between frequencies and route each signal stream to the appropriate end-

developed Digital Subscriber Line (DSL) Service as a competing broadband platform that transmitted data more efficiently over their copper wires. At the risk of simplification, DSL did for copper wires what cable modems did for coaxial cable: it separated information traveling over the wire into two streams, which allowed data to move more rapidly through the network with minimal interference from voice traffic.²⁹

C. The “Open Access” Debate

The advent of broadband communication threatened to render dial-up ISPs such as AOL obsolete. DSL and cable modem service offered customers access to the Internet at much greater speeds than dial-up ISPs could offer. Moreover, broadband internet access was often bundled with video or voice service, meaning customers could simply add internet service to their existing accounts without needing to establish service with a separate provider.³⁰ To survive, ISPs sought to gain access on a wholesale level to the facilities that cable and telephone companies used to provide broadband service, so they could package that high-speed transmission with their own internet access service and thus compete in the broadband market.³¹ Their arguments for “open access” relied upon the regulatory uncertainty surrounding the proper classification of broadband service under the Communications Act.³² In some ways, these arguments laid the groundwork for the current net neutrality debate.

In 1998, the Commission ruled that the transmission component of DSL service—the carrying of internet data signals over the telephone company’s DSL lines—was a “telecommunications service” under Title II of the Act and therefore subject to common carrier obligations.³³ The upshot of the ruling was that, while telephone companies could sell broadband internet access directly to consumers, they also had to make their DSL lines available as a wholesale input to unaffiliated ISPs to bundle with

user device. *Id.* Because the broadband signal effectively receives its own “path” on the cable line, the line can transmit significantly more data at significantly greater speeds than was available over dial-up.

²⁹ Equipment at the telephone company office recognizes the separate digital signal and allows it to bypass the switches that the company uses to route voice traffic. Filters in the end-user’s home similarly separate voice and data traffic and route the appropriate signal to the appropriate device.²⁹ By giving data traffic a dedicated channel on the copper wire, free of potential interference from analog voice traffic, and allowing that data traffic to bypass the switches that route voice signals, DSL service boosts data traffic to speeds comparable to cable modem service.

³⁰ See High-Speed Access to the Internet Over Cable and Other Facilities, Declaratory Ruling & Notice of Proposed Rulemaking, 17 FCC Rcd. 4798 (2002) (hereafter “Cable Modem Order”), at 4804 ¶ 10.

³¹ See In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability, 13 F.C.C. Rcd. 24012, 24016–17, ¶¶ 8-10 (1998).

³² See generally *id.*

³³ *Id.* at 24030–31, ¶¶ 35–37. The FCC explained that high-speed Internet access via DSL is actually two bundled services: access to the Internet, which is a largely unregulated Title I information service, and underlying transmission of information over the DSL line, which is a Title II common carrier service. *Id.*

their own internet access services.³⁴ But the Commission refused to offer similar guidance regarding cable modem service, which left open the question whether cable companies were subject to a similar “open access” requirement.³⁵

The question whether unaffiliated ISPs should receive access to cable networks raged for years in academic circles, Commission proceedings, and multiple court cases.³⁶ Finally in 2005, the Supreme Court upheld the Commission’s determination that cable modem service was properly classified under Title I and therefore not subject to common carrier requirements.³⁷ The Commission reasoned that open access requirements were unnecessary in light of the robust market for broadband access, and could in fact prove harmful if excessive regulation hampers future broadband deployment.³⁸ Having received the Supreme Court’s blessing, the Commission promptly re-classified DSL service as a Title I rather than a Title II service,³⁹ and explained that wireless internet access and broadband over power lines would be similarly classified.⁴⁰ In this way, the Commission hoped to “establish a consistent regulatory framework across broadband platforms by regulating like services in similar manner.”⁴¹

Thus freed of the requirement to sell portions of their bandwidth at wholesale rates to competitors, and assured of the Commission’s position that robust competition among providers and a light regulatory touch would maximize broadband deployment, the cable and telephone industries invested tens of billions of dollars in the last decade, mostly since the 2005 ruling, to upgrade their networks in response to burgeoning consumer demand.⁴² Specifically, both industries began upgrading their networks to use fiber-optic cable. Unlike twisted-pair copper and coaxial cables, fiber-

³⁴ *Id.*; see Lyons, *supra* note 16, at 403.

³⁵ See Lyons, *supra* note 16, at 404.

³⁶ See Jonathan H. Nuechterlein, *The Digital Broadband Migration: Information Policy for the Next Administration*, 7 J. Telecomm. & High Tech. Law 19, 25 (2009). For a more detailed discussion of the open access debate and the problems caused by this regulatory uncertainty, see Lyons, *supra* note 16, at 403-04.

³⁷ See Nat’l Cable & Telecomm. Ass’n v. Brand X Internet Servs., 545 U.S. 967 (2005), *aff’g* Cable Modem Order. The Supreme Court affirmed the Commission’s conclusion that, while cable modem service “used telecommunications” in the sense that the transportation of information from one point to another is an essential component of the service, this transport was only one component of integrated cable modem service and not conceptually separate from the end-product..

³⁸ See Cable Modem Order, *supra* note 30.

³⁹ See Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, 20 F.C.C. Rcd. 14853 (2005).

⁴⁰ See *In re Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, 22 FCC Rcd. 5901 (2007) (hereafter “Wireless Broadband Order”); *In re United Power Line Council’s Petition for Declaratory Ruling Regarding the Classification of Broadband Over Power Line*, 21 FCC Rcd. 13281 (2006).

⁴¹ See Wireless Broadband Order, *supra* note 40 ¶ 2.

⁴² Thomas W. Hazlett and Anil Caliskan, *Natural Experiments in U.S. Broadband Regulation*, 7 REVIEW OF NETWORK ECONOMICS 460, 477 (2008) (analyzing growth in broadband opportunities and competition following Commission’s order to lift Title II obligations on DSL service).

optic cables do not depend upon the transmission of electricity through metal to send voice, video, or data signals. Instead, the signals are transmitted by beams of light traveling at very high speeds through hollow, flexible glass tubes as thin as a human hair, thousands of which are bundled together into a typical fiber-optic line.

Fiber-optic cable held the promise of a next-generation broadband service that delivered data at speeds even greater than DSL or cable modem service.⁴³ But fiber-optic cables are expensive, several times the cost of their copper-wire and coaxial counterparts. Cable and especially telephone companies were reluctant to assume such a significant, multi-year capital improvement project unless they could be reasonably certain they could earn a return on that investment.⁴⁴ AT&T and Verizon faced the most costly upgrade projects, needing to replace literally millions of miles of copper wire with fiber-optic cable, and therefore looked to additional revenue streams beyond mere data transport to support that investment. This way, telephone companies could finally achieve Congress's dream of creating true intermodal competition in the multichannel video market, by becoming the cable industry's first true wire-based competitors.⁴⁵

D. Origins of Net Neutrality

⁴³ See JIM BALLER & CASEY LIDE, BALLER HERBST LAW GROUP, CAPTURING THE PROMISE OF BROADBAND FOR NORTH CAROLINA AND AMERICA 11 (2008) ("Of all current technologies, the most robust is fiber optics. Hair-thin glass fiber optic cables can carry virtually infinite amounts of digital information encoded on light beams traveling at nearly the speed of light between lasers at the ends of the cables."), quoted in Susan P. Crawford, *Transporting Communications*, 89 B.U. L. REV. 871, 908 n.183 (2009).

⁴⁴ As Michael Santorelli has noted, fiber-optic cable is not a new phenomenon. The telephone companies deployed some "rings" of fiber-optic cable as early as the 1980s to carry voice calls on heavy-traffic long distance corridors. See Michael J. Santorelli, *Rationalizing the Municipal Broadband Debate*, 3 I/S: A J. OF L. & PUB. POL. FOR THE INFO. SOC. 43, 62 (2007). But the telephone companies were wary of over-investing in fiber beyond those corridors, in part because of the lessons of the dot-com boom. During the 1990s, start-up companies laid millions of miles of fiber throughout the country, with dreams that the new network would carry a wide range of next-generation Internet applications. When the dot-com bubble burst, many of these companies went bankrupt, stranding these networks and causing what has become known as a "fiber glut." See *id.* at 62-63. The telephone companies were perhaps wary of making the same mistake, and therefore invested more heavily in fiber to individual neighborhoods and homes only once it became clear that the vaunted "triple-play" of voice, video, and internet service would guarantee a return on this huge investment.

⁴⁵ Through Project U-Verse (formerly known as Project Lightspeed), AT&T has embarked upon a fiber-to-the-node (FTTN) model that uses fiber-optic cable from the local exchange office to neighborhood nodes, then traditional twisted-pair copper wire from the neighborhood node to individual homes. See <http://www.att.com/gen/press-room?pid=5838>. Verizon's FiOS program is centered upon a more ambitious, and more expensive, fiber-to-the-home (FTTH) system that relies on fiber-optic cable exclusively throughout much of the FiOS footprint. See <http://www22.verizon.com/residential/fiostv>. Both companies have heavily touted their respective video offerings as a significant source of future revenue and an essential component of a profitable fiber-based network. These investments differ in kind from the type of fiber installations that brought about the "fiber glut" of the 1990s: the dot-com companies largely invested in redundant (and therefore inefficient) networks between hubs along what they anticipated to be high-traffic corridors, without installing additional fiber from those hubs to individual neighborhoods or consumers. See Santorelli, *supra* note 44, at 63.

As the Open Access debate played out, and it became clear that the Commission intended to take a light regulatory touch to broadband, commentators such as Lawrence Lessig and Tim Wu grew increasingly concerned with the possibility that broadband providers would someday use their control of their networks to discriminate against certain content providers.⁴⁶ While there is an incalculable number of providers of applications and services operating on the Internet, the broadband path from the Internet to end-user consumers must necessarily go through one of a handful of companies that operate the nation's telecommunications networks. Lessig, Wu, and others are concerned that, should broadband providers use this control to block or degrade certain applications or content, it would impair the creativity and innovation in applications and content that have helped the Internet grow so explosively.⁴⁷ Chairman Genachowski has analogized this concern as the need to regulate the "onramps to the Internet."⁴⁸

Net neutrality opponents' response has been two-fold. First, they argue that net neutrality seems largely to be a solution in search of a problem. Broadband providers generally have not blocked the Internet's "onramps" to particular applications or content.⁴⁹ As the Commission has noted, the broadband market is competitive, with most American consumers having a choice of two or more providers.⁵⁰ Any broadband provider that blocks or degrades services that consumers want is likely to face market-based repercussions as consumers flock to their competitors (in addition to possible legal action if the interference violates antitrust law).⁵¹ And that competitive pressure will only grow as wireless broadband matures into a legitimate third platform for broadband service.⁵²

Second, broadband providers highlight the tens of billions of dollars they have invested in building and maintaining the fiber-optic networks that make broadband internet access possible. This is a capital risk that

⁴⁶ See Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. ON TELECOMM. & HIGH TECH. L. 141, 145-46, 165-68 (2003) (arguing that net neutrality is needed for innovation and proposing an antidiscrimination rule to achieve net neutrality by "forbid[ding] broadband operators, absent a showing of harm, from restricting what users do with their Internet connection"); LAWRENCE LESSIG, *THE FUTURE OF IDEAS* 46-48, 155-76, 246-49 (2001).

⁴⁷ *Id.*

⁴⁸ Julius Genachowski, Comments on Open Internet, available at <http://www.openinternet.gov>.

⁴⁹ But see the Madison River and Comcast investigations, discussed *infra* at text accompanying notes ___ to ___. Net neutrality opponents typically dismiss such cases as aberrations that the Commission could, and did, handle through adjudication without the need for broad-reaching network neutrality rules.

⁵⁰ See, e.g., Preserving the Open Internet Broadband Industry Practices, Comments of Verizon and Verizon Wireless, filed on January 14, 2010, at 12, available at www.fcc.gov (hereafter "Verizon Comments").

⁵¹ See, e.g., Jonathan E. Nuechterlein, *Antitrust Oversight of an Antitrust Dispute: An Institutional Perspective on the Net Neutrality Debate*, 7 J. TELECOMM. & HIGH TECH. L. 19, 39 (2009) (summarizing net neutrality opponents' position).

⁵² See *id.*; see also Verizon Comments, *supra* note 50, at 21-31.

unaffiliated content providers have not assumed and upon which the broadband providers must earn a decent rate of return. Comcast, Verizon, AT&T, and others invested this capital in part to augment their own ability to offer consumers bandwidth-intensive internet applications and content of their own, most notably enhanced video services. Should consumer demand for bandwidth-consuming applications outstrip bandwidth supply (as occurred with dial-up), broadband providers argue that they should be able to grant priority access to the delivery of their own content, or to third-party providers willing to pay for priority access, so as to continue to recover the capital they have invested in their networks.⁵³ Christopher Yoo also argues that allowing service providers to choose how to manage their bandwidth would encourage innovation in the “onramp” market by making it economically viable for new experimental broadband business models to challenge existing broadband providers.⁵⁴

Before proceeding further, it is important to highlight the contours of the debate. Net neutrality focuses upon the potential restrictions, if any, that broadband providers can put upon internet content and application providers, such as Google or Hulu. It is *not* concerned with the fees that broadband providers charge end-user consumers for internet access. All parties agree that broadband providers should be permitted to charge different prices to different end-user consumers, depending upon how much bandwidth the consumer uses or what speeds the consumer demands. So while Chairman Genachowski has repeatedly referred to net neutrality as regulating the “onramp to the Internet,” it is perhaps more accurate to describe it as regulating the Internet’s “offramp:” the focus is not the flow of information from the consumer to the Internet, but from the Internet to the consumer.

In a sense, the ongoing debate about net neutrality is an argument about the continued vitality of the “best efforts” internet to meet future consumer demand. As Robert Atkinson and Philip Weiser explain, the Internet developed as an “end-to-end” open architecture, within which a content or application provider could offer its goods to the public simply by placing a software program on a publicly available server.⁵⁵ This wide-open Internet was, and is, comprised of “best effort” networks, meaning “networks that deliver any and all digital content based upon the best guess and effort as to how to forward it along to its final destination.”⁵⁶ Content is broken into thousands of “packets,” each of which are routed through

⁵³ Christopher Yoo, *Would Mandating Broadband Network Neutrality Help or Hurt Competition? A Comment on the End-to-End Debate*, 3 J. ON TELECOMM. & HIGH TECH. L. 23, 67 (2004).

⁵⁴ *Id.* at 61 (“[A]llowing last-mile broadband providers to differentiate their product offerings can help prevent declining-cost industries from devolving into natural monopolies.”).

⁵⁵ Robert D. Atkinson & Philip J. Weiser, Information Tech. & Innovation Foundation, *A “Third Way” on Network Neutrality* (2006), available at <http://www.itif.org/files/netneutrality.pdf>

⁵⁶ *Id.* at 4.

independent network paths to the end-user, whose computer reassembles them into the requested content. The network provider—today’s broadband access provider—makes no quality-of-service guarantee regarding how quickly particular content can be delivered, or even whether particular content will even arrive at its destination.

As high-bandwidth applications proliferate across the web, it is unclear whether a “best efforts” architecture remains the ideal model. The “best efforts” internet evolved from a *download* model of data transmission: end users downloaded data from public servers in short, discrete bursts. But more and more activity on today’s Internet is much more *interactive*.⁵⁷ Applications such as two-way video communication or telemedicine⁵⁸ require real-time transmission of large amounts of data at high-speed and with low latency.⁵⁹ Such applications require a minimum level of speed and performance that “best efforts” networks do not guarantee. Other applications, such as multichannel video service, still fit the download meme but must send a constant stream of bandwidth-consuming data to each end-user, consuming far more network capacity than earlier, more traditional download applications entail.

When networks get congested, routers queue incoming data packets so they can proceed in an orderly fashion, and sometimes start dropping packets randomly to ease congestion. With respect to email or webpage data, a delay in packet delivery or an occasional dropped packet is almost imperceptible to the end-user. But similar delays with respect to streaming video or a two-way voice application could degrade the conversation sufficiently to render the application useless.

In these cases, broadband providers make a reasonable argument for a “managed network” which can identify certain types of data as more important than others, and give that data priority in the event of network congestion or some other factor rendering the simultaneous delivery of all requested content impossible.⁶⁰ In essence, broadband providers envision a content delivery service similar to that of the U.S. Post Office: all content and application providers can use the network for “first class” mail, but those companies who seek to purchase “priority mail” or “express mail” services could receive faster and higher-quality delivery. This is known as “tiered access pricing.”

⁵⁷ See Christopher Yoo, Comments at Innovation, Investment, and the Open Internet Workshop, January 13 2010, *available at* <http://blog.openinternet.gov/?p=255>.

⁵⁸ Telemedicine leverages broadband networks to allow medical care facilities to communicate remotely with physicians in a distant community to enhance the quality of medical care. It is used most commonly to bring high-quality medical care to rural communities. See, e.g., Mignon Clyburn, Broadband Adoption: Traveling the Consumers Last Mile, Prepared Remarks delivered at The Joint Center for Political and Economic Studies, Sept. 21, 2009, *available at* 2009 WL 3012591.

⁵⁹ See Yoo, *supra* note 57. Speed refers to the amount of time it takes a packet to travel from origin to destination. Latency refers to the amount of packet loss that occurs while en route.

⁶⁰ See, e.g., Yoo, *supra* note 53, at 67; Verizon Comments, *supra* note 50, at 81-84.

On the other hand, allowing certain content providers to pay for high-speed access, while relegating non-payers to the network's "slow lane," would give an unfair advantage to well-capitalized, established companies in a medium that has historically rewarded innovation and entrepreneurship outside the mainstream. In the words of Atkinson and Weiser, "[u]nder the terms of the current debate, this development—of managed private Internet networks—is either an opportunity for new innovations or a threat to the Internet's open environment. In reality, however, it is both."⁶¹

E. Lurching Toward a Net Neutrality Policy

This early debate spawned a series of proposed bills on net neutrality. At one point in 2005 there were four separate net neutrality bills in some stage of the Capitol Hill process, which would have imposed varying levels of obligations on telecommunications network providers.⁶² But the net neutrality debate turned out to be more smoke than fire: Congress has yet to pass legislation that would place any nondiscrimination obligations on broadband providers.

This does not mean, however, that policymakers had turned a deaf ear to net neutrality concerns. As part of the Commission's 2005 order reclassifying wireline broadband as a Title I service, the Commission issued a non-binding policy statement outlining what it viewed as the Four Freedoms governing its approach to the Internet.⁶³ Specifically, the Commission stated the following:

[T]o ensure that broadband networks are widely deployed, open, affordable, and accessible to all consumers, the Commission adopts the following principles:

- To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet, consumers are entitled to access the lawful Internet content of their choice.
- To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet, consumers are entitled to run

⁶¹ *Id.* at 4-5.

⁶² Several Congressional Committees discussed net neutrality, most notably the Senate Subcommittee on Commerce, Science, and Transportation, where at a legislative mark-up session Chairman Ted Stevens famously stated that the Internet is "not a big truck" but rather "a series of tubes." MP3 Recording: Hearing on S. 2686 Communications, Consumers' Choice, and Broadband Deployment Act of 2006 Before the S. Commerce Comm. (June 8, 2006), available at <http://media.publicknowledge.org/stevens-on-nn.mp3>. Senator Stevens was widely ridiculed for these comments.

⁶³ Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Policy Statement, 20 FCC Rcd. 14986 (2005).

applications and use services of their choice, subject to the needs of law enforcement.

- To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet, consumers are entitled to connect their choice of legal devices that do not harm the network.
- To encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet, consumers are entitled to competition among network providers, application and service providers, and content providers.⁶⁴

Notably, the Policy Statement also noted that these principles are “are subject to reasonable network management” and are in any case not formally binding until they are adopted as part of a rulemaking proceeding.⁶⁵ In a separate statement, then-Chairman Kevin Martin expressed his view that the increasing competition within the market for broadband providers rendered it unnecessary to promulgate formal, binding net neutrality rules.⁶⁶

The Commission’s decision to issue its “Four Freedoms” Policy Statement may have been influenced by its concurrent investigation of blocking allegations by Madison River Communications LLC, a small rural telephone and DSL provider. Vonage, a provider of Voice-over-Internet-Protocol (VoIP) service, complained that Madison River Communications was blocking ports that were typically used by Vonage customers to make VoIP telephone calls, presumably because VoIP service was competing directly against the company’s traditional telephone service.⁶⁷ Following a public uproar, Madison River agreed to a consent decree preventing it from blocking VoIP ports or otherwise prevent its customers from using VoIP applications.⁶⁸ Although the Madison River order was not binding law, net neutrality advocates seized upon the order as evidence that their concerns were not unfounded.

Momentum for net neutrality reform increased with the Commission’s 2008 sanction of Comcast Corporation for unreasonable network management practices.⁶⁹ Comcast experienced network congestion

⁶⁴ *Id.* ¶ 4.

⁶⁵ *Id.* ¶ 4 n.15.

⁶⁶ See Kevin J. Martin, Comments on Commission Policy Statement, August 5, 2005, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-260435A2.pdf.

⁶⁷ See *In re Madison River Communications and Affiliated Companies*, Order, 20 FCC Rcd. 4295 (EB 2005)

⁶⁸ *Id.*

⁶⁹ See Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications; Broadband Industry Practices; Petition of Free Press et al. for

in certain neighborhoods caused by bandwidth-hogging peer-to-peer file sharing programs such as BitTorrent. To solve this problem, Comcast secretly and selectively targeted packets stemming from such applications and delayed or terminated these transmissions by forging reset packets purporting to be from the requesting computer and requesting termination of the download.⁷⁰ The Commission found that “Comcast's practices contravene industry standards and have significantly impeded Internet users' ability to use applications and access content of their choice” in a manner that does not constitute “reasonable network management.”⁷¹ The Commission was particularly distressed by the company's deceitful behavior toward its end-user consumers, to whom it owed a duty of clear disclosure regarding the limitations it would impose upon the services they purchased. The Commission therefore ordered Comcast to cease its practices and instead adopt a “protocol-agnostic network management technique” with clear disclosure to consumers regarding its network management policies.⁷² The Comcast Order marked the first time that the Commission had enforced net neutrality-like principles against a broadband provider; Comcast has appealed the order to the D.C. Circuit Court of Appeals, where the matter is currently under submission.⁷³

F. The Commission's Proposed Rules

As the Comcast hearing played out, net neutrality became a hot issue in the 2008 presidential campaign, most notably in the Democratic primary.⁷⁴ After the election, President Obama made good on his campaign promise to “take the backseat to no one in [his] commitment to network neutrality.” He nominated noted network neutrality enthusiast Julius Genachowski as chairman of the Commission. Shortly thereafter, the Commission promulgated a notice of proposed rulemaking that would, for

Declaratory Ruling that Degrading an Internet Application Violates the FCC's Internet Policy Statement and Does Not Meet an Exception for “Reasonable Network Management,” Memorandum Opinion and Order, 23 FCC Rcd. 13028 (2008) (hereafter “Comcast Order”).

⁷⁰ *Id.* ¶¶ 6-8.

⁷¹ *Id.* ¶ 51.

⁷² *Id.* ¶ 54.

⁷³ See *Comcast Corp. v. FCC*, No. 08-1291 (D.C. Cir., argued and submitted Jan 8, 2010). Comcast has challenged the order on the basis that the Commission cannot enforce a non-binding policy statement without fair notice, and that the Commission lacks authority under Title I of the Communications Act to punish Comcast's conduct. Other commentators have similarly argued that the Commission lacks authority to enforce its chosen rule against Comcast, while not defending Comcast's specific conduct and noting that Comcast could face liability under more general consumer protection statutes.

⁷⁴ Senator Clinton was initially silent on the topic of net neutrality, leading many to question whether the issue would be a priority in her administration. In November 2007, Senator Obama seized upon the issue, using a speech at Google's headquarters as a backdrop to endorse net neutrality. Placed on the defensive, Senator Clinton quickly brandished her own net neutrality credentials, leading to the two candidates co-sponsoring legislation that would have adopted strong restrictions on broadband providers' ability to engage in access-tiering. See Nuechterlein, *supra* note 36, at 20 n.2.

the first time, create binding net neutrality rules. These proposed rules are currently pending before the agency in a matter entitled “Preserving the Open Internet.”⁷⁵

First, the Commission proposes to codify the Four Freedoms listed in the non-binding 2005 policy statement as binding rules of network management.⁷⁶ But rather than codify them as freedoms to which consumers are entitled, the proposed rules would codify the restrictions as obligations on broadband providers.⁷⁷ Therefore subject to “reasonable network management,” a broadband service provider may not “prevent any of its users from [(1)] sending or receiving the lawful content of the user’s choice over the Internet...[(2)] running the lawful applications of or using the lawful services of the user’s choice...[(3)] connecting to and using on its network the user’s choice of lawful devices that do not harm the network.”⁷⁸ It also cannot “[4] deprive any of its users of the user’s entitlement to competition among network providers, application providers, service providers, and content providers.”⁷⁹ The Commission states that codification of these existing principles would “support our goals of protecting consumers and encouraging innovation and investment” over the Internet.⁸⁰

The Commission has also proposed two additional rules that were not included in the original Four Freedoms policy statement. The fifth rule states that, “[s]ubject to reasonable network management, a broadband Internet access service must treat lawful content, applications, and services in a nondiscriminatory manner.”⁸¹ Notably, this proposed rule shifts the debate away from the obligations that broadband providers would owe to their paying end-user customers, which had been the focus of the Four Freedoms statement and spawned the most vitriolic portions of the Comcast Order. The Commission made clear that this fifth principle “would not prevent a broadband Internet access service provider from charging *subscribers* different prices for different services” or for tiered service at different speeds.⁸² Rather, the nondiscrimination rule would prevent broadband providers from denying access to third-party content and application providers attempting to send material to the broadband provider’s end user. They also would be unable to charge such providers

⁷⁵ See Net Neutrality NOPR, *supra* note 1.

⁷⁶ *Id.* ¶¶ 88-102.

⁷⁷ The proposed rules would apply to broadband network providers such as Verizon, Comcast, and others that sell internet access to the public at non-dial-up speeds, but not to suppliers of localized wifi services such as local coffee houses, which rely upon broadband network providers to send and receive data transmission from the Internet. *Id.*

⁷⁸ *Id.* ¶ 92.

⁷⁹ *Id.*

⁸⁰ *Id.* ¶ 93.

⁸¹ *Id.* ¶ 104.

⁸² *Id.* ¶ 106.

for “enhanced or prioritized delivery to [the] end user” over the broadband network.⁸³

Finally, the Commission has proposed a sixth principle of “transparency” requiring that broadband providers “disclose such information concerning network management and other practices as is reasonably required for users and content, application, and service providers to enjoy the protections specified in this part.”⁸⁴ The Commission explicitly stated that this rule stems directly from its experiences with Comcast’s refusal to disclose its practices to consumers (and to the Commission) during the BitTorrent investigation.⁸⁵

But the proposed rules come with two large caveats that go far to determine the scope of the proposed obligations. First, each of the six rules is subject to “reasonable network management.”⁸⁶ The Commission has refused to define this carveback with specificity, preferring instead to “describe these concepts at a relatively general level and leave more detailed rulings to the adjudications of particular cases.”⁸⁷ But it proposes that broadband providers generally be permitted to “reduce or mitigate the effects of congestion,” “address quality-of-service concerns,” and “prevent the unlawful transfer of content” or “transfer of unlawful content.”⁸⁸ Of course, Comcast argued that its throttling of BitTorrent traffic was necessary to “reduce or mitigate the effects of congestion,” yet the Commission rejected this argument. The Commission’s comments suggest that this carveback should be narrow, and that the “reasonableness” of a particular network management practice likely turns upon whether it is narrowly tailored to support the Commission’s nondiscrimination rule as closely as possible. For example, the Commission has rejected the blocking or degrading of VoIP traffic to relieve congestion, unless the broadband provider puts the same restrictions on all other services that similarly affect bandwidth usage and have similar quality-of-service requirements.⁸⁹ It has also rejected the singling out of any particular content provider’s traffic for blocking or deprioritization, absent some evidence that this particular provider’s traffic was harmful or illegal.⁹⁰

Second, the Commission has floated the possibility of an exception for “managed or specialized services” that are provided over the same networks as broadband access but do not traverse the public internet.⁹¹ The

⁸³ *Id.*

⁸⁴ *Id.* ¶¶ 118-119.

⁸⁵ *Id.* ¶ 124.

⁸⁶ *Id.* ¶ 133. The Commission has similarly subjected the rules to the needs of law enforcement, public safety, and homeland security. *Id.*

⁸⁷ *Id.* ¶ 134.

⁸⁸ *Id.* ¶ 135.

⁸⁹ *Id.* ¶ 137.

⁹⁰ *Id.*

⁹¹ *Id.* ¶ 148-149.

Commission cites as possible examples telemedicine, public safety communications, distance learning, and—importantly—AT&T’s U-verse Internet Protocol Television service.⁹² The proposed rules recognize that these speed- and latency-sensitive applications benefit from minimum performance guarantees that the “best efforts” internet cannot deliver. At the same time, however, it is concerned that granting such exceptions, either by rule or by case-by-case adjudication, could lead such services to “supplant or otherwise negatively affect the open Internet.”⁹³ The Commission thus invited comment on this trial balloon, without providing much guidance regarding what the final scope of this exception may be, if any.

With the Open Internet NOPR, the Commission has for the first time considered imposing the binding restrictions that net neutrality proponents have long sought: real, binding limits on the ability of broadband providers to grant or deny third parties the right to access their networks, and on what terms. Of course, antitrust law already constrains broadband providers’ ability to leverage their control of networks to harm competitors or otherwise seek an unfair advantage in other markets, just as it does most other commercial enterprises.⁹⁴ But otherwise, the Commission has stated repeatedly that broadband access is not subject to common carrier regulations, notably the requirement to provide nondiscriminatory service to all comers at just and reasonable rates. Thus broadband providers remain largely free to determine which entities can use their facilities and the terms of such use, just as any other property owner can determine the conditions of use of its property. While competitive pressure and present network capacities have led broadband providers largely to refrain from exercising this right of ownership, the ability to do so provided some level of comfort as Comcast, Verizon, and AT&T spent billions of dollars upgrading to fiber-optic cable. This investment would be recovered in part by the sale of advanced services such as multichannel video distribution. As demand for bandwidth grows, the ability to move or

⁹² *Id.* ¶ 150. It is worth noting that AT&T’s IPTV service is structurally different from Verizon’s FiOS service or video services offered by cable companies. Traditional cable service operates on a “push” model that sends all available video feeds through shared wires to neighborhoods, much like broadcasting. Consumers tap into that shared feed to view particular programs. By comparison, AT&T’s service operates on a “request-send” model whereby individual users request specific programs from a central server, and only that program is sent directly to that consumer’s home. Though U-Verse uses IP protocol logic and shares physical lines with AT&T’s broadband service, it travels on a private IP network that AT&T constructed specifically for video transport and therefore is not a broadband service. See U-Verse IPTV, http://www.highdefinitionblog.com/?page_id=286. Verizon has announced plans to shift its competing FiOS service to an IPTV model in most areas within the next few years. See Steven Kim, Verizon FiOS Moving Towards IPTV, Sept. 25, 2007, available at <http://hd.engadget.com/2007/09/25/verizon-fios-moving-towards-iptv/>.

⁹³ *Id.* 149.

⁹⁴ See generally Nuechterlein, *supra* note 51 (discussing antitrust solutions to the net neutrality debate); Verizon Commc’ns, inc. v. Law Offices of Curtis V. Trinko, 540 U.S. 398, 406 (2004) (finding that the 1996 Act does not exempt the telecommunications industry from prosecution under antitrust laws).

exclude unaffiliated content helps assure that broadband providers can continue to provide those advanced services to their end-user customers.⁹⁵

The “Open Internet” framework therefore severely constricts the bundle of property rights that comes with ownership of a broadband network. By denying broadband providers the right to exclude virtual trespassers from their networks, the proposed rules effectively grant application and content providers unfettered access to the physical wires that comprise the network. Were this a physical easement across network providers’ property, the Supreme Court’s Fifth Amendment jurisprudence would find little difficulty labeling this easement a permanent physical occupation of property by another, and thus a per se taking that requires compensation. There is no reason why the same principles should not apply to compelled access to broadband providers’ physical networks. At the very least, the scheme interferes with broadband providers’ reasonable investment-backed expectations and therefore warrants compensation as a regulatory taking. To explain why, one must examine the Court’s modern takings jurisprudence and how it applies to electronic networks, a topic to which this paper now turns.

II. NET NEUTRALITY THROUGH THE LENS OF THE TAKINGS CLAUSE

A. Overview of Regulatory Takings Jurisprudence

The Fifth Amendment concludes with the pithy restriction, “nor shall private property be taken for public use without just compensation.”⁹⁶ The clause imposes both a substantive and a procedural hurdle on the federal government’s eminent domain power: the government can take private property only if the taking is for a “public use” and when it does so, it must provide “just compensation” to the affected landowner.⁹⁷ For the past 85 years, the clause has also been interpreted to place a limit on the government’s power to *regulate* private property. A particular regulation on the use of private property may well be within Congress’s power to adopt, but if the regulation goes “too far” it will effectively constitute a taking that requires just compensation, even if title to the property is technically left in the owner’s hands.⁹⁸

The Court has struggled to determine when a regulation can go “too far.” For over three decades, *Penn Central* has provided the three rough guideposts of regulatory takings jurisprudence.⁹⁹ Under this test, the Court balances (1) the economic impact of the regulation and (2) its interference

⁹⁵ See, e.g., Verizon Comments, *supra* note 50.

⁹⁶ U.S. CONST. AM. V.

⁹⁷ See, e.g., *Kelo v. City of New London*, 545 U.S. 469 (2005).

⁹⁸ *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922).

⁹⁹ *Penn Central Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978).

with the owner's reasonable investment-backed expectations against (3) the nature of the government's action.¹⁰⁰ *Penn Central* is, by its terms, an ad-hoc balancing test, which offers a rough list of issues that a court should consider in its takings calculus but deliberately refuses to determine how much weight each factor should receive.¹⁰¹ The resulting framework is flexible enough to be adapted to a wide range of potential regulations promulgated by the modern administrative state, but offers maddingly little predictability or consistency across cases.¹⁰²

To provide some modicum of certainty, subsequent caselaw has identified a handful of categories of regulations that constitute *per se* takings without the need to balance the three *Penn Central* factors. One of these is the permanent physical invasion doctrine. In *Loretto v. Teleprompter Manhattan CATV Corp.*,¹⁰³ the Court announced that “a permanent physical occupation authorized by government is a taking without regard to the public interests that it may serve.”¹⁰⁴ *Loretto* involved a New York statute requiring all landlords to allow cable companies access to their properties to provide cable services to tenants, without charging more than a nominal fee for access.¹⁰⁵ In *Loretto*'s case, this statute allowed the cable company to install a small metal box on the rooftop of the building and a narrow cable down the front of the building to the first floor.¹⁰⁶ The Court held that because the statute permitted the cable company to permanently occupy the rooftop and the side of the building without the consent of the property owner, it constituted a permanent physical occupation of the landlord's property and therefore the Fifth Amendment required that just compensation be paid.¹⁰⁷

While most commentators treat *per se* takings as doctrine distinct from the *Penn Central* balancing test,¹⁰⁸ the *Loretto* Court saw its rule as a specific application of the more general rule. *Loretto* draws upon *Penn Central*'s suggestion that “[a] taking may more readily be found when the interference with property can be characterized as a physical invasion by government” rather than merely an exercise of the state's traditional police

¹⁰⁰ *Id.*

¹⁰¹ *Id.* at 124 (“[T]his Court, quite simply, has been unable to develop any ‘set formula’ for determining when ‘justice and fairness’ require that economic injuries caused by public action be compensated by the government, rather than remain disproportionately concentrated on a few persons.”).

¹⁰² See, e.g., Eric R. Claeys, *The Telecommunications Act of 1996, the Takings Clause, and Tensions in Property Theory*, 22 YALE J. ON REG. 205, 224 (2005) (“*Penn Central* claims that all takings cases are “ad hoc,” and it warns lawyers and judges off from using conceptual severance and other formalistic tools to draw analogies across different classes of takings cases.”).

¹⁰³ 458 U.S. 419 (1982).

¹⁰⁴ *Id.* at 426.

¹⁰⁵ *Loretto*, 458 U.S. at 421.

¹⁰⁶ *Id.* at 422.

¹⁰⁷ *Id.* at 426.

¹⁰⁸ See Claeys, *supra* note 102, at 225 (“Many commentators portray the categorical and balancing regulatory-takings cases as two sharply, almost hermetically-separate, fields of takings law.”).

power.¹⁰⁹ In essence, *Loretto* held that where that physical invasion rises to the level of a permanent physical occupation of property (by the government or by a third party), the third prong of the balancing test weighs conclusively in the owner’s favor without a need to consider the other two factors. “[A] permanent physical occupation is a government action of such a unique character that it is a taking without regard to other factors that a court might ordinarily examine. ...In such a case, ‘the character of the government action’ not only is an important factor in resolving whether the action works a taking but also is determinative.”¹¹⁰

Loretto singled out government-sanctioned permanent physical invasions both under the Court’s prior case law and as a matter of first principles. Writing for the Court, Justice Marshall explained that “[s]uch an appropriation is perhaps the most serious form of invasion of an owner’s property interests” because it “does not simply take a single strand from the bundle of property rights” but rather “chops through the bundle, taking a slice of every strand.”¹¹¹ Moreover, Justice Marshall explained, an owner suffers a “special kind of injury” from a permanent physical occupation. At a bare minimum, property law guarantees that an owner will remain relatively undisturbed in possession of his or her property. A regulation that not only ousts the owner from possession, but permits a stranger to invade and act as the true owner “literally adds insult to injury.”¹¹² Notably, Justice Marshall was not generally known as a proponent of either strong individual property rights or bright-line rules; his authorship of *Loretto* and his justification of the decision from first principles provide significant support for the Court’s *per se* rule.

Loretto thus draws a constitutional distinction between compelled physical occupation cases and more run-of-the-mill exercises of the state’s police power. *Loretto* takings go beyond mere “restrictions upon the owner’s use of his property”,¹¹³ rather, as William Barr, Henry Weissmann, and John Frantz note, “[t]he operative fact in such cases is that the government is *appropriating* the use of the property for the benefit of *the public*.”¹¹⁴ *Loretto* thus fits comfortably alongside the long line of so-called “utility takings” cases, which hold that the appropriation of private property for public use requires just compensation.¹¹⁵ When the government eliminates the owner’s right to exclude, the property in question ceases to be

¹⁰⁹ *Penn Central*, 438 U.S. at 124.

¹¹⁰ *Loretto*, 458 U.S. at 426.

¹¹¹ *Id.* at 435.

¹¹² *Id.* at 436.

¹¹³ *Id.* at 441 (emphasis added).

¹¹⁴ William P. Barr, Henry Weissmann, and John P. Frantz, *The Gild That is Killing the Lily: How Confusion Over Regulatory Takings Doctrine is Undermining the Core Protections of the Takings Clause*, 73 GEO. WASH. L. REV. 429, 485 (2005) (emphasis added).

¹¹⁵ See *id.*

wholly private. While the state is free to appropriate the use of property in this fashion, the Constitution requires that compensation be paid.¹¹⁶

B. Net Neutrality as a Per Se Taking Under Loretto

1. Net Neutrality Effects a Permanent Physical Occupation of Broadband Networks

Even the most straightforward telecommunications regulations can be a study in opaque, jargon-laden decisionmaking. But once stripped of its technical façade and reduced to more conventional property terms, the proposed net neutrality regulations strongly suggest a permanent physical occupation of broadband providers' property under *Loretto*. The purpose of the "open internet" initiative is to prevent broadband providers from controlling which third-party content and application providers can use their networks to deliver information to end-user consumers. In essence, these third parties receive an unlimited, continuous right of access to broadband providers' private property. This access allows them to physically invade broadband networks with their electronic signals and permanently occupy portions of network capacity, all without having to pay the network provider for access. The effect is to appropriate the use of these private networks for the public's benefit, in the form of unfettered and nondiscriminatory access to the content and applications of the consumer's choosing. As Judge Stephen Williams noted in a different (but related) telecommunications takings case, "[t]he creation of an entitlement in some parties to use the facilities of another, *gratis*, would seem on its face to implicate *Loretto*."¹¹⁷

To draw a parallel to real property law, the rights granted to content and application providers are akin to a virtual easement to transverse broadband providers' networks. This type of access right fits comfortably within the Court's physical takings cases. *Loretto* quotes approvingly Professor Frank Michelman's analysis showing that, while regulatory takings cases are hard to classify with certainty, "[t]he one incontestable case for compensation (short of formal expropriation) seems to occur with the government deliberately brings it about that its agents, or the public at large, 'regularly' use, or 'permanently' occupy, space or a thing which theretofore was understood to be under private ownership."¹¹⁸ In *Nollan v. California Coastal Commission*,¹¹⁹ decided four years after *Loretto*, the Court struggled with the creation of an easement across a privately-held beach, which would allow members of the public to cross from one public beach to another. The Court made clear that, were such an easement to be

¹¹⁶ *Id.*

¹¹⁷ *Turner Broad. Sys., Inc. v. FCC*, 819 F. Supp 32, 64 n.10 (D.D.C. 1993) (Williams, J., dissenting).

¹¹⁸ *Id.* at 427 n.5.

¹¹⁹ 483 U.S. 825 (1987).

directly imposed upon the property owner, it would unquestionably constitute a *Loretto* taking, even though it meant that different members of the public might occupy different parts of the property at any given time. “[P]ermanent physical occupation’ has occurred, for purposes of that rule, where individuals are given a permanent and continuous right to pass to and fro, so that the real property may continuously be traversed, even though no particular individual is permitted to station himself permanently upon the premises.”¹²⁰

Thus the net neutrality rules are not mere restrictions on an owner’s ability to use its property, but instead implicate the full bundle of rights whose intersection so troubled Justice Marshall and the *Loretto* Court. In *Tahoe-Sierra*, the Court explained that most regulations do not effect a per se taking claim because they “do[] not give the government any right to use the property, nor do[they] dispossess the owner or affect her right to exclude others.”¹²¹ Net neutrality, by contrast, implicates each of these rights: like the cable access statute at issue in *Loretto*, the proposed regulation “chops through the bundle” of property rights, “taking a slice of every strand.”¹²²

Most obviously, broadband providers lose the right to *exclude*, which “has traditionally been considered one of the most treasured strands in an owner’s bundle of property rights.”¹²³ Indeed, the very purpose of net neutrality is to deny broadband providers the right to exclude others from their networks. As the Court has explained, “required acquiescence is at the heart of the concept of occupation.”¹²⁴ Unless they exit the internet access business, broadband providers must allow any and all content and application providers to traverse their networks, and cannot charge a fee for doing so. In the Court’s parlance, the rule converts content and application providers from mere “commercial licensee[s]” into “interloper[s] with a government license.”¹²⁵

By surrendering permanent access to third parties, broadband providers also lose the ability to control the *use* of their networks. At a base level, a broadband provider physically cannot use for its own purposes bandwidth that has already been occupied by a third party. Nor may it send its own signals through the network if doing so will

¹²⁰ *Id.* at 831. The key question in *Nollan* was whether the government could impose an easement as a condition of approving the homeowners’ request for a permit to condemn their one-story bungalow and build a larger home on the property. The Court held that such a condition was permissible only if the condition was “roughly proportional” to the impact of the development on the public interest. Otherwise the condition would effect a taking for which compensation is required, regardless of the fact that the government remained free to deny the building permit absent the restriction.

¹²¹ *Tahoe-Sierra Preservation Council v. Tahoe Reg. Planning Agency*, 535 U.S. 302, 324 n.19 (2002).

¹²² *Loretto*, 458 U.S. at 435.

¹²³ *Id.*

¹²⁴ *F.C.C. v. Florida Power Corp.*, 480 U.S. 245, 252 (1987).

¹²⁵ *Id.* at 252-53.

disproportionately “degrade” third party content (for example, by adversely rerouting third-party data packets in a way that would cause delays or packet loss). Indeed, broadband providers even lose the ability to control how third parties use the network, insofar as the rules prohibit providers from prioritizing certain third-party packets for faster delivery. As Barr, Weissmann, and Frantz summarize, the government has appropriated the right to use broadband networks, so that all content and application providers can peddle their wares to consumers. In *Loretto* terms, broadband providers “not only cannot exclude others, but can make no nonpossessory use of the property.”¹²⁶

Finally, net neutrality infringes on the right to *dispose*. Again quoting *Loretto*, “even though the owner may retain the bare legal right to dispose of the occupied space by transfer or sale, the permanent occupation of that space by a stranger will ordinarily empty the right of any value, since the purchaser will also be unable to make any use of the property.” The prohibition against charging for preferred network access limits network providers’ ability to “lease” scarce broadband for a profit, and also limits the value of the network to prospective buyers insofar as they are unable to use for their own purposes that portion of the network occupied by third-party content.¹²⁷

2. Fifth Amendment Protection of Electronic Networks

Nor should it be relevant that the right of access at issue is a right to access electronic networks rather than to real property. As an initial matter, the *Loretto* rule has never been limited to physical occupation of *real* property. The D.C. Circuit has addressed this issue at length in *Nixon v. United States*, a case involving a per se taking of President Nixon’s private papers by national archives.¹²⁸ The court held that “[o]ne may be just as permanently and completely dispossessed of personal property as of real

¹²⁶ *Id.* Depending upon the final rules governing the reasonable network management and managed services carvebacks, this infringement on the right of use may become even greater as the growth in demand for broadband outstrips supply. As noted above, on a congested network without quality-of-service guarantees, broadband providers will find it more difficult to deliver the enhanced services upon which they rely to pay back their tremendous investment in broadband deployment and upgrades.

¹²⁷ It is no answer to respond that, as long as some bandwidth is available, the broadband provider can make use of other network capacity for its own purposes. The cable box at issue in *Loretto* occupied only a few cubic feet of an otherwise large building, and the landlord retained the full panoply of rights to the rest of the building. The Court found this fact irrelevant: “whether the installation is a taking does not depend upon whether the volume of space is bigger than a breadbox.” *Id.* at 438 n.16. More generally, as the D.C. Circuit has explained, “[t]he retention of some access rights by the former owner of property does not preclude the finding of a per se taking.” *Nixon v. United States*, 978 F.2d 1269, 1285-86 (D.C. Cir. 1992).

¹²⁸ *Nixon*, 978 F.2d at 1269.

property” and noting that the Court has repeatedly noted in dicta that per se physical taking of personal property is possible.¹²⁹

Indeed, the *Loretto* Court itself considered the possibility that its rule could cover access to electronic networks. As Justice Blackmun’s dissent explains, *Loretto*’s attorney explained at oral argument that it should not matter whether the cable line in question was owned by the cable company or the landlord, because the cable company’s invasion of the line by electronic signals would still constitute a permanent physical occupation of private property.¹³⁰ Justice Blackmun agreed that the majority’s opinion, when “[l]iterally read,” must include compelled access to electronic networks: “[s]o long as Teleprompter continuously passed its electronic signal through the cable...a ‘physical touching’ by a stranger was satisfied and that § 828 therefore worked a taking.”¹³¹

In the network access context, the Eleventh Circuit has found that a statute requiring utility companies to allow cable companies to attach wires to their network of utility poles constitutes a per se physical taking of utility property.¹³² Admittedly, the physical configurations of the two takings are different: pole attachment involves wires occupying space on a network of poles, while net neutrality involves data streams occupying space inside a network of wires. But the legal issues are identical. Both laws require network owners to dedicate a portion of available capacity to third-party use for the purpose of enhancing the telecommunications industry.

Moreover, as a factual matter, the transmission of content over broadband networks is not some metaphysical act.¹³³ It takes place in a real physical space, the fiber-optic and copper wires that comprise the broadband network, which are mounted in above-ground or underground easements across real property. Transmission of internet content primarily involves the movement of electrons, which are physical particles, that occupy rivalrous limited space on those lines en route from the Internet to the end-user consumer. While the electrons are invisible to the naked eye

¹²⁹ *Nixon*, 978 F.2d at 1285; see, e.g., *United States v. Sperry Corp.*, 493 U.S. 52, 62 n. 9 (1989) (discussing per se takings of “real or personal property”); *Loretto*, 458 U.S. at 427 n.5 (quoting Michelman’s conception that government may trigger taking by “regularly us[ing] or permanently occupy[ing], space or a thing).

¹³⁰ See *Loretto*, 458 U.S. at 450 & n.8 (Brennan, J., dissenting).

¹³¹ *Id.* at 450 (Brennan, J., dissenting).

¹³² See *Gulf Power Co. v. United States*, 187 F.3d 1324, 1328 (11th Cir. 1999). The Supreme Court considered a similar takings claim under an earlier version of the statute, which had regulated pole attachment rates but did not make such attachment compulsory. See *F.C.C. v. Florida Power Corp.*, 480 U.S. 245, 250 (1987). The *Florida Power* Court found no per se physical taking because, at the time, attachment to utility poles was not mandated by the Act. But it did not even discuss the possibility that a per se taking claim would not lie because the property at issue was poles (which typically exist on an easement over real property owned by another) rather than real property.

¹³³ Cf. *Turner Broadcasting Sys. v. F.C.C.*, 819 F. Supp. 32, 64 n.10 (D.D.C. 1993) (Williams., J., dissenting) (“The [National Association of Broadcasters] responds that *Loretto* is limited to ‘physical’ occupations of ‘real property.’ But the insertion of local stations’ programs into a cable operator’s line-up presumably is not a metaphysical act, and presumably takes place on real property.”)

and travel very quickly within a sheathed wire, the physical act of transmission is nothing more than a microscopic version of vehicles traveling along a highway—or pedestrians traversing an easement.¹³⁴

Some courts have suggested that physical takings doctrine should apply to electronic networks, in the context of cable must-carry rules. The 1992 Cable Act gave certain broadcasters the right to compel cable companies to carry their stations on cable networks.¹³⁵ The cable industry fought an unsuccessful battle to oppose the requirement, primarily on First Amendment grounds.¹³⁶ Along the way, however, the judiciary hinted that a Fifth Amendment claim might have gained some traction. Dissenting from the three-judge panel that denied the cable industry’s challenge, Judge Stephen Williams explained that a law creating an “entitlement in some parties to use the facilities of another” seems to invite a challenge under *Loretto*. In the process, he swept aside the broadcast industry’s counterargument that *Loretto* should be “limited to ‘physical’ occupations of ‘real property.’”¹³⁷ Later in *Turner I*, four Justices recognized that a common carriage obligation placed on some of a cable system’s channels would raise a Takings Clause questions even though the question was not squarely presented before that Court.¹³⁸

Laurence Tribe expanded upon this theme eight years later, when arguing against a proposal that cable companies be forced to carry digital broadcast signals.¹³⁹ The shift from analog to digital television meant that broadcasters could now send multiple video feeds instead of just one signal over the same amount of bandwidth. The FCC opened a proceeding in 2002 to consider whether cable companies should be required to carry these digital feeds on their systems, as the 1992 Cable Act required for analog feeds. Tribe argued that by forcing cable companies to allow broadcasters exclusive use of channels on the cable system, the FCC would deprive those

¹³⁴ Moreover, it is worth noting that several courts have found takings where third-party interference with an owner’s property rights falls short of actual placement of physical objects on the owner’s property. See, e.g., *United States v. Causby*, 328 U.S. 256 (1946) (regular low-level flyovers by military aircraft) (cited as example of physical taking in *Loretto*); *Richards v. Wash. Terminal Co.*, 233 U.S. 546 (1914) (smoke and gases from nearby tunnel constructed under act of Congress).

¹³⁵ See 47 U.S.C. § 534(a) (2000).

¹³⁶ See *Turner Broadcasting Sys., Inc. v. FCC*, 520 U.S. 180 (1997) (*Turner II*); *Turner Broadcasting Sys., Inc. v. FCC* 512 U.S. 622 (1994) (*Turner I*).

¹³⁷ *Turner Broadcasting Sys.*, 819 F. Supp. At 64 n.10 (Williams., J., dissenting)

¹³⁸ *Turner I*, 512 U.S. 622, 684 (1994) (O’Connor, J., joined by Scalia, Thomas, and Ginsburg, JJ., concurring in part and dissenting in part) (“Congress might also conceivably obligate cable operators to act as common carriers for some of their channels, with those channels being open to all through some sort of lottery system or time-sharing arrangement. **Setting aside any possible Takings Clause issues**, it stands to reason that if Congress may demand that telephone companies operate as common carriers, it can ask the same of cable companies.”) (emphasis added).

¹³⁹ See Laurence H. Tribe, *Why the Commission Should Not Adopt a Broad View of the “Primary Video” Carriage Obligation*, Comments filed with Commission July 9, 2002. The digital broadcast signals at issue differ from the analog signals at issue in the *Turner* decisions.

cable companies of the right to exclude and would effectively condemn a portion of the cable network under *Loretto*.¹⁴⁰

Notably, Tribe argued that “[t]here would be no question that a compensable taking of private property for public use had occurred if the government decreed that cable operators had to turn over their entire channel capacity to broadcasters, even if cable companies kept bare possession of the tangible real and personal property necessary to provide programming to the system’s subscribers over those channels.”¹⁴¹ The constitutional principle is the same, he argued, “whether the transfer is accomplished wholesale or piece by piece. There is no constitutional exception that allows the government to avoid the Takings Clause by taking one strand of property at a time.”¹⁴²

But Tribe’s parade-of-horrors hypothetical almost precisely states the Commission’s plans with respect to net neutrality. The proposed rules could effectively turn over the entire capacity of the broadband network to content and application providers, if demand for third-party content outstripped available bandwidth. Broadband providers would retain bare possession of their network facilities, but would be able to use those facilities to transmit content only as bandwidth permits. Moreover, their use of their own network would be subject to duties not to interfere with consumer choice and not to block or degrade other content and applications—which puts them at a disadvantage in the market for content and applications, since their competitors would labor under no such restrictions. In Tribe’s words, there should be “no question” that a compensable taking of private property for public use has occurred.

3. The *Cablevision* Decision

Yet some courts have rejected the extension of the physical takings doctrine to the context of occupation of electronic networks. In mid-2009, *Cablevision* raised a belated Takings Clause challenge to the analog must-carry statute adjudicated in the *Turner* cases, in the context of an FCC order requiring it to carry a Long Island station on its networks.¹⁴³ This argument had previously garnered some support from FCC Commissioner Harold Furchtgott-Roth: “It is not unreasonable to argue that when a broadcast station’s signal is mandatorily carried over a cable system, that carriage

¹⁴⁰ *Id.* at 13-14.

¹⁴¹ *Id.* at 14-15 (citing *Kimball Laundry v. United States*, 338 U.S. 1, 12 (1949) (“[W]hen the Government has condemned business property with the intention of carrying on the business, as where public-utility property has been taken over for continued operation by a governmental authority[, and] the taker acquires going-concern value, it must pay for it.”)).

¹⁴² Tribe, *supra* note 139, at 15. Although the Commission did not address the Takings Clause argument at length, it ultimately decided against imposing digital must-carry obligations.

¹⁴³ *Cablevision Sys. Corp. v. FCC*, 570 F.3d 83, 88 (2d Cir. 2009).

constitutes a permanent, physical occupation of the cable operator's private property - and thus a per se taking of that property... Here, the agency's decision to avoid any substantive discussion of Cablevision's Takings claim pays silent tribute to the strength of the claim.”¹⁴⁴ Yet the Second Circuit rejected Cablevision’s argument, holding tersely that must-carry does not require any installation of broadcasting equipment on Cablevision’s facilities and that the transmission of data over cable bandwidth does not involve a physical occupation of Cablevision property under *Loretto*.¹⁴⁵

The *Cablevision* decision demonstrates the uncertainty surrounding the extension of “terrestrial” concepts to electronic networks. The above discussion shows that a significant argument can be made that the Fifth Amendment protects electronic networks from permanent physical occupation, just as various other forms of property are protected. But the abstract sense that networks are somehow “different” and that different rules should apply can constrain the court’s analysis and lead to the type of *ipse dixit* conclusions found in *Cablevision*. In reality, broadband wires are not black boxes beyond the reach of constitutional protection, and data transmission is not an indecipherable metaphysical process. While *Loretto* undoubtedly described its ruling as “narrow”, later courts have extended its holding to reach easements across real property, attachment to utility poles, and possession of purely personal property. Other doctrines have long found virtual access to networks a constitutional concern and have adapted “real-world” doctrines to fit network access issues.¹⁴⁶ Broadband providers have the same property rights in their networks as other owners have in more conventional property, and should receive the same level of protection from permanent physical occupation under the Fifth Amendment.

C. Net Neutrality as a Regulatory Taking Under Penn Central

Cablevision correctly notes that a regulatory takings claim that does not satisfy the *Loretto* test or another of the court’s per se takings doctrines is typically subjected to the *Penn Central* ad-hoc balancing test mentioned above.¹⁴⁷ If broadband providers were to lose their claim that net neutrality effects a *Loretto* taking, they may nonetheless assert a claim under *Penn*

¹⁴⁴ In re WXTX License Partnership G.P., 15 FCC Rcd. 3308, 3320 (2000) (separate statement of Comm’r Furchtgott-Roth).

¹⁴⁵ *Cablevision*, 570 F.3d at 98; see also *Qwest Corp. v. United States*, 48 Fed. Cl. 672 (Fed. Cl. 2001) (denying *Loretto* claim stemming from statute mandating that local telephone company grant competitor access to its telephone network facilities).

¹⁴⁶ See, e.g., *Turner II*, 520 U.S. at 180 (adopting modified *O’Brien* test under First Amendment to determine constitutionality of compelled speech over cable networks); *Katz v United States*, 389 U.S. 347 (1967) (Fourth Amendment does not turn on whether government physically penetrated area occupied by petitioner; highlights petitioner’s expectation of privacy and norm that telephone is medium of private communication); Omnibus Safe Streets Act (regulating wiretapping).

¹⁴⁷ *Penn Central Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978); see text accompanying notes ___-___.

Central. As discussed above, this ad-hoc test balances three factors: the owner’s reasonable investment-backed expectations, the economic impact of the regulation, and the nature of the government’s action. Regulations that merely “adjust[] the benefits and burdens of economic life to promote the common good” are likely to be upheld. Moreover, because “[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law,”¹⁴⁸ the doctrine typically gives wide latitude to regulators seeking only to regulate one’s *use* of property. But a taking “may more readily be found when the interference with property can be characterized as a physical invasion by government,” even if short of the *Loretto* per se standard, particularly where the economic impact and interference with investment-backed expectations are great.¹⁴⁹

1. Interference with Investment-Backed Expectations

Broadband providers are likely to assert that net neutrality unduly interferes with their reasonable investment-backed expectations with regard to future broadband service. As noted in Section IC, the Commission ended the Open Access debate by labeling broadband service as a Title I information service free of nondiscrimination and other common carrier obligations that accompany more heavily regulated telecommunications services. The end of this regulatory uncertainty led to an explosion in investment in fiber-optic cable and other network improvements, investment that providers hoped to recover through not only the sale of faster internet service, but also enhanced services such as video service that faster broadband speeds made possible. Net neutrality unreasonably interferes with these expectations of future revenue streams—expectations backed by literally billions of dollars of infrastructure investment. Broadband providers have a vested interest in their ability to block or degrade content and applications to shield their present and future enhanced services from broadband congestion. Interference with these expectations, they would argue, should weigh heavily in their favor in the *Penn Central* calculus.

While this argument is strong—the billions invested in infrastructure and the guarantees proffered by *Brand X* and Commission precedent set broadband providers apart from most claims of investment-backed expectations—broadband providers face a significant hurdle. As many have noted, “[d]oing business in a highly regulated field raises the bar” for showing that any investment-backed expectations were

¹⁴⁸ *Id.* at 124.

¹⁴⁹ *Id.*

reasonable.¹⁵⁰ As the Supreme Court has explained, “those who do business in [a] regulated field cannot object if the legislative scheme is buttressed by subsequent amendments to achieve the legislative end.”¹⁵¹

Although broadband service is only lightly regulated under Title I of the Communications Act, broadband providers are primarily either telephone companies subject to Title II or cable providers subject to Title VI (or both), and are therefore readily familiar with the realities of doing business as a regulated industry. Moreover, broadband providers have been on notice for years of the possibility of being subjected to future net neutrality regulation: not only have a flurry of proposals reached committees in Congress, but the Commission explicitly issued its Four Freedoms policy statement in 2005. While the policy statement was non-binding, its unanimous approval and explicit language regarding future rulemaking proceedings suggested strongly that some form of net neutrality lay in the industry’s future. The Comcast order and the Obama campaign’s net neutrality platform dispelled any lingering doubts as to the ultimate destination of internet policy. Therefore while fiber upgrades were implemented at a time of relatively light regulation, any expectation by shareholders that internet access would remain unregulated for the foreseeable future would have been unreasonable, or at least a judge could reasonably so find.

2. Economic Impact

While the investment-backed expectations inquiry examines the loss of future earning potential, the economic impact prong asks the court to examine the effect of the regulation on the present value of the property. Economic impact is rarely dispositive—the Court famously sustained zoning ordinances against a takings challenge despite the fact that the regulation caused a 75% reduction in property value¹⁵²—a greater showing of economic impact can lead to a lesser showing on the other two factors.

In this case, it is difficult to determine ex ante what the economic impact of net neutrality will be on broadband providers’ current use. Broadband providers are not currently engaged in blocking, traffic throttling, and other behavior that the net neutrality rules would forbid. Nor, for the most part, are they offering tiered service to content and application providers willing to pay for quality of service guarantees. The

¹⁵⁰ Cf. Nissa Laughner & Justin Brown, *Cable Operators’ Fifth Amendment Claims Applied to Digital Must-Carry*, 58 Fed. Comm. L.J. 281, 305 (2006).

¹⁵¹ *Concrete Pipe & Prods. of S. Cal., Inc. v. Constr. Laborers Pension Trust for S. Cal.*, 508 U.S. 602, 645 (1993) (quoting *FHA v. The Darlington, Inc.*, 358 U.S. 84, 91 (1958)); see also Franklin Mem. Hosp. v. Harvey, 575 F.3d 121, 128 (1st Cir. 2009) (“FMH’s investment-backed expectations are tempered by the fact that it operates in the highly regulated hospital industry.”).

¹⁵² See *Village of Euclid v. Ambler Realty*, 272 U.S. 326 (1926).

lack of such behavior suggests that the ability to engage in such practices is not essential to maintenance of *present* operations.

One can question whether the Supreme Court has charted the correct course in choosing to ignore the regulation's effect on potential future markets. In copyright law, for example, owners can claim infringement based not only on lost sales in existing markets for the work at issue, but also based on interference with the rights holder's ability to exploit future markets that it has not yet entered. But under existing Court precedent, the economic impact is small. The net neutrality rules impose primarily opportunity costs, in the sense of the lost value of the option to engage in such behavior if necessary. But the value of such an option is inherently speculative, and the loss of this option has little impact on the industry's current economics. Therefore it is likely that this factor will not weigh strongly in the broadband providers' favor.

3. Character of the Government Action

This prong examines the motives behind the government's action and the extent to which it interferes with the owner's preexisting property rights.¹⁵³ In this case, these factors tug in opposite directions. The government is not merely "acting in an enterprise capacity" for its own benefit.¹⁵⁴ On the one hand, the Commission has promulgated these rules to benefit public welfare through assurances of an open internet.¹⁵⁵ Rightly or not, the Commission recognizes broadband providers as bottlenecks in the broadband economy, and has determined that it is in the public interest to guard innovation and creativity from potential abuse of that bottleneck position.

On the other hand, the government's chosen method of regulating in the public interest involves highly invasive inroads into the private property rights of network providers. As noted above, the net neutrality rules substantially interfere with broadband providers' traditional rights to exclude from, use, and dispose of property. The providers' takings claim is similar to the claim presented in *Kaiser Aetna*, where the government imposed a navigational servitude on a private marina in the public interest.¹⁵⁶ The property owner purchased a private pond in Hawaii and, with the approval of the Army Corps of Engineers, dredged the pond and converted it into a marina.¹⁵⁷ As a final step, the owner cut a channel to connect his marina to a nearby bay. Once it did so, however, the government claimed that the marina constituted "navigable waters" and

¹⁵³ See *Penn Central*, 438 U.S. at 135.

¹⁵⁴ *Penn Central*, 438 U.S. at 135.

¹⁵⁵ Net Neutrality NOPR, ¶ 1.

¹⁵⁶ *Kaiser Aetna v. United States*, 444 U.S. 164 (1979).

¹⁵⁷ *Id.*

therefore imposed a navigational servitude on the marina to permit access to the public.¹⁵⁸ The Court held that the government had authority to impose the servitude—the equivalent of an easement—on the property, but that doing so deprived the owner of the right to exclude. For that taking, the Court awarded just compensation.¹⁵⁹

One can debate whether *Kaiser Aetna* is better classified as a *Loretto* case or a *Penn Central* case. *Loretto* affirmatively disavows the placement of *Kaiser Aetna* within its per se rule: because the servitude is in the nature of the easement, the Court explained, people come and go as they please. Thus while there is a physical invasion of the marina by the public generally, there is no permanent physical occupation. *Nollan*, however, seems to eschew this logic, asserting unequivocally that the imposition of an easement on real property constitutes a per se taking, regardless of the fact that no individual user would maintain a permanent position on the easement.

If, after *Nollan*, *Kaiser Aetna* is better classified as a *Loretto* case, then the parallels between this case and that one strengthens the broadband providers' per se physical appropriation claim. If, however, *Kaiser Aetna* properly belongs with run-of-the-mill regulatory takings cases under *Penn Central*, then it helps weigh the “nature of the government action” factor in the owners' favor by showing how significantly the regulation would invade private property interests.

Given the ad-hoc nature of the *Penn Central* test, it is always difficult to predict with certainty how a court will determine any given regulatory takings case. But given the lack of significant present economic impact and the seemingly strong public interest served by net neutrality regulation, broadband providers likely face an uphill battle to convince a judge that the rules constitute a typical regulatory taking. The physical appropriation claim is the better of the two arguments broadband providers can make to try to preserve their property rights from Commission appropriation.

D. Distinguishing Common Carriage and Public Accommodations

Proponents may argue that the proposed net neutrality rules are simply a particular species of common carriage or public accommodations laws, which generally withstand Fifth Amendment scrutiny. The Court has explained that

Where “permanent physical occupation” of land is concerned, we have refused to allow the government to

¹⁵⁸ *Id.*

¹⁵⁹ *Id.*

decree it anew (without compensation), no matter how weighty the asserted “public interests” involved—though we assuredly would permit the government to assert a permanent easement that was a pre-existing limitation upon the land owner’s title.¹⁶⁰

In other words, a regulatory takings claim would not lie if the restriction stems from background limits that the common law traditionally placed upon property. In such a case, no taking can occur because the law has not “taken” anything from the landowner. Rather, if the common law never recognized the right at issue, then it was never the owner’s to begin with.

But upon closer examination, this defense collapses. To avail itself of this safe harbor, the Commission must show that “the law or decree...do[es] no more than duplicate the result that could have been achieved in the courts” under a common law property claim, or otherwise make explicit a limitation implied in the owner’s title by “existing rules or understandings.”¹⁶¹ In this case, the net neutrality restrictions go far beyond whatever limitations common carriage or public accommodations norms placed upon network owners at common law.

1. Common Carriage

Common carriage is a slippery term. The Communications Act defines a “common carrier” somewhat circularly as “any person engaged as a common carrier for hire, in interstate or foreign communication by wire or radio.”¹⁶² But perhaps more helpfully, it also notes that “[a] telecommunications carrier shall be treated as a common carrier under this chapter only to the extent that it is engaged in providing telecommunications service.”¹⁶³ Since the Commission has classified broadband service as an “information service” rather than a “telecommunications service,”¹⁶⁴ the Act precludes a finding that, as a matter of statute, an implied common carriage restriction lurks in the shadows of broadband providers’ property rights.¹⁶⁵

The Commission fares no better with the common law. In *NARUC v. FCC*, the DC Circuit struggled with the “long and complicated history” of

¹⁶⁰ *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1028-29 (1992).

¹⁶¹ *Id.* at 1029-30.

¹⁶² 47 U.S.C. § 153(10).

¹⁶³ *Id.* § 143(44).

¹⁶⁴ See *supra* decisions cited at notes 30, 39-40.

¹⁶⁵ Indeed, the Supreme Court has previously overturned a Commission regulation foisting common carriage-like restrictions on non-common carriers, finding that the Act prohibits such a rule. See *FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979).

the “common law definition of common carrier,” as it would apply to the telecommunications industry.¹⁶⁶ The *NARUC* court explained,

Originally, the doctrine was used to impose a greater standard of care upon carriers who held themselves out as offering to serve the public in general. The rationale was that by holding themselves out to the public at large, otherwise private carriers took on a quasi-public character. This character, coupled with the lack of control exercised by shippers or travellers over the safety of their carriage, was seen to justify imposing upon the carrier the status of an insurer.¹⁶⁷

By the late nineteenth century, common carriers found themselves subject to rate and service regulations in addition to a heightened standard of care. In the 1876 decision *Munn v. Illinois*, the Court sustained such restrictions placed upon a grain elevator against a challenge that they effected a deprivation of property without due process.¹⁶⁸ The Court found that such restrictions were appropriate when the business in question is “affected by the public interest,” a phrase coined two centuries before by Sir Matthew Hale, then-Lord Chief Justice of the King’s Bench.¹⁶⁹ *Munn* discussed at length the types of industries that Hale classified in this category, such as ferries,¹⁷⁰ wharves,¹⁷¹ and warehouses.¹⁷² In each case, Lord Hale described

¹⁶⁶ National Ass’n of Reg. Util. Comm’rs v. FCC, 525 F.2d 630, 640 (D.C. Cir. 1976) (hereafter “*NARUC I*”).

¹⁶⁷ *Id.*

¹⁶⁸ *Munn v. Illinois*, 94 U.S. (4 Otto) 113 (1876). *Munn* and other cases in this line predated the modern incorporation doctrine, and can be thought of as nineteenth-century analogues to modern takings doctrine. See Daniel A. Lyons, *Public Use, Public Choice, and the Urban Growth Machine: Competing Political Economies of Takings Law*, 42 U. MICH. J. LAW REF. 265, 273-74 (2009).

¹⁶⁹ Breck P. McAllister, *Lord Hale and Business Affected with a Public Interest*, 43 HARV. L. REV. 759, 759 (1930), cited in *NARUC I*, 525 F.2d at 641 n.54.

¹⁷⁰ *Munn*, 94 U.S. at 126 (“[A]s to ferries, Lord Hale says...the king has ‘a right of franchise or privilege, that no man may set up a common ferry for all passengers, without a prescription time out of mind, or a charter from the king. He may make a ferry for his own use or the use of his family, but not for the common use of all the king’s subjects passing that way; because it doth in consequence tend to a common charge...”).

¹⁷¹ *Id.* (“A man, for his own private advantage, may, in a port or town, set up a wharf or crane, and may take what rates he and his customers can agree ... for he doth no more than is lawful for any man to do, viz., makes the most of his own. . . . If the king or subject have a public wharf, unto which all persons that come to that port must come and unlade or lade their goods as for the purpose, because they are the wharfs only licensed by the queen, . . . or because there is no other wharf in that port, as it may fall out where a port is newly erected; in that case there cannot be taken arbitrary and excessive duties...”).

¹⁷² *Id.* at 127-28 (“There is no doubt that the general principle is favored, both in law and justice, that every man may fix what price he pleases upon his own property, or the use of it; but if for a particular purpose the public have a right to resort to his premises and make use of them, and he have a monopoly in them for that purpose, if he will take the benefit of that monopoly, he must, as an equivalent, perform the duty attached to it on reasonable terms. The question then is, whether, circumstanced as this company is, by the combination of the warehousing act with the act by which they were originally constituted, and with the actually existing state of things in the port of London, whereby they alone have

the industry in question as either operating pursuant to a franchise or charter from the king, or otherwise possessing monopoly power over the public. In such cases, *Munn* explained, private property is dedicated to a public use to such a degree as to justify public regulation.

The *NARUC* court pulled these and other strands of common law common carriage into a two-part test. As interpreted by subsequent courts and Commission decisions, this test finds a business to be a common carrier “[1] if it will ‘make capacity available to the public indifferently’ or [(2)] if ‘the public interest requires common carrier operation of the proposed facility.’”¹⁷³ The first prong focuses upon whether the business “undertakes to carry for all people indiscriminately.... [A] carrier will *not* be a common carrier where its practice is to make individualized decisions, in particular cases, whether and on what terms to deal.”¹⁷⁴ The second focuses primarily upon market dominance: “In ascertaining the public interest, the focus of our inquiry here is whether the license applicant has sufficient market power to warrant regulatory treatment as a common carrier.”¹⁷⁵ This disjunctive test thus captures the broad range of industries traditionally considered common carriers: utilities such as electricity and traditional telephony are common carriers by virtue of their market power, while industries such as trucking and lodging become common carriers despite market power due to the voluntary decision to hold themselves out to serve the public indiscriminately.

Broadband providers satisfy neither prong of the disjunctive *NARUC* test. First, as regards content and application providers, broadband providers explicitly have *not* held themselves out to carry for all entities indiscriminately. Rather, they reserved the right to make, and in many cases actually have made, “individual decisions, in particular cases, whether and on what terms to deal.” Indeed, Verizon, AT&T and the rest of the industry have opposed the Open Internet initiative precisely because it would deny them the ability to negotiate individualized access agreements that they wish to reach with content and application providers. And the Commission has repeatedly found that the marketplace for broadband services is competitive, thus foreclosing a finding of market power. Indeed, this finding was central to the Commission’s decision to classify broadband as a Title I service free of the common carrier obligations that would have come had it instead been classified as a Title II telecommunications service.¹⁷⁶

the warehousing of these wines, they be not, according to the doctrine of Lord Hale, obliged to limit themselves to a reasonable compensation for such warehousing.”)

¹⁷³ *Virgin Islands Tel. Corp. v. FCC*, 198 F.3d 921, 924 (D.C. Cir. 1999) (quoting *In re Cable & Wireless PLC*, 12 FCC Rcd. 8516, paras. 14-15 (1997)).

¹⁷⁴ *NARUC I*, 525 F.2d at 641 (emphasis added).

¹⁷⁵ *AT&T Submarine Sys.*, 13 FCC Rcd. 21585 ¶ 9 (1998).

¹⁷⁶ See, e.g., *Wireline Broadband Order*, 20 FCC Rcd 14877-78 ¶¶ 44, 47; *Triennial Review Order*, 18 FCC Rcd at 17141-42, ¶ 272; *Verizon Forbearance Petition*, 19 FCC Rcd at 21504 ¶ 19; *United Power Line Council’s Petition for Declaratory Ruling Regarding the Classification*

Because broadband service does not satisfy either prong of the *NARUC* test, it does not fit the traditional common law definition of common carriage.

Susan Crawford has recently suggested that this focus on market power represents a flawed interpretation of past precedent.¹⁷⁷ She argues that market power is only a recent yardstick for common carriage and is at odds with the history of common carriage legislation.¹⁷⁸ Crawford would substitute in its place a more amorphous test that focuses upon whether the industry in question has a “special relationship” with the state, in the sense that their services are “fundamental to a successful polity.”¹⁷⁹ But this proposed definition provides little more clarity than Lord Hale’s original formulation. As Crawford candidly notes, it is difficult to determine what the “principled basis” for this special relationship is, in a way that would distinguish common carriers from providers of other basic societal staples such as “flour or salt.”¹⁸⁰ Moreover, this formulation downplays the obvious fact that concerns about market power *have* historically animated many decisions in this area, from *Munn* forward. The Communications Act is itself modeled upon the Interstate Commerce Act, which imposed common carrier duties on railroads explicitly because of concerns about market power. And while some traditional common carriers do not historically possess market power—such as trucking or aeronautics—the *NARUC* test explains that they became common carriers by virtue of a strategic decision to serve the public indiscriminately. Absent this voluntary act, the common law imposed common carrier-like obligations only to control market power, and that rationale is simply not present in the modern broadband industry.

Even if Crawford was correct, however, and broadband does resemble the type of industry traditionally classified as a common carrier, the proposed net neutrality regulations would fail because they impose a burden on the industry far greater than traditional common carriage would. Traditional common carriage regulations would impose, at most, rate regulations and nondiscrimination obligations on broadband providers: the essence of common carriage is to provide service to all comers at just and reasonable rates.¹⁸¹ Under this formula, broadband providers would be able to provide “tiered” service to content and application providers for a fee, as the U.S. Postal Service does to its customers, as long as they offer similar service tiers at similar rates to similarly-situated providers. But the Open

of Broadband over Power Line Internet Access Service As an Information Service, Memorandum Opinion and Order, 21 FCC Rcd 13281 (2006).

¹⁷⁷ See Crawford, *supra* note 43, at 876 (“Market power is not the reason that this non-discrimination obligation has been imposed on basic communications networks”).

¹⁷⁸ *Id.* at 880; see also *id.* at 883-84 (“There appears to be only a weak correlation between market power or monopoly and the historical imposition of non-discrimination obligations.”).

¹⁷⁹ *Id.* at 885.

¹⁸⁰ *Id.* at 884-85.

¹⁸¹ See *Munn*, 94 U.S. at 126-28; see, e.g., 47 U.S.C. §§ 201, 202.

Internet initiative, by contrast, would ban such agreements outright, whether or not this service is provided on a common carriage basis.¹⁸²

None of this is to suggest that Congress is without the power to impose common carriage-like restrictions on broadband providers as a matter of policy. As noted above, Congress retains the power to place whatever restrictions on broadband providers that it deems in the public interest. But the Commission's proposed initiative cannot be insulated from the Fifth Amendment with reference to traditional common carriage principles. Broadband providers simply do not fit the profile of a traditional common carrier, and the proposed rules go far beyond traditional common carriage restrictions on business. As a result, the rules do more than simply make explicit an existing restriction implied in law on broadband providers' rights. While a regulation is not a taking if it removes a right that the owner never had at common law, these rules go further than traditional common law common carriage ever would. Therefore the proposed rules are not on that basis shielded from a takings claim.

2. Public Accommodations Rules

The proposed rules also impose a greater burden on broadband providers than common law public accommodations statutes would suggest. Though often opaque in its reasoning, the Court has sustained certain public accommodations statutes against takings claims. The two leading cases on this point are *Heart of Atlanta Motel*, which perfunctorily dismissed a Fifth Amendment challenge to the Civil Rights Act,¹⁸³ and *PruneYard*, which found that the California Constitution's grant of a free speech right of access to shopping malls did not offend the Takings Clause.¹⁸⁴ The upshot of these decisions appears to be that property owners who invite the public generally to their property lose at least some of their Fifth Amendment protections against further regulation of the right to access.¹⁸⁵ In a sense, this line of cases echoes the common carriage restrictions placed upon entities that hold themselves out to serve the public indiscriminately.

But while these cases suggest that some form of public access right is permissible, they are distinguishable from the Commission's proposed net

¹⁸² See *In re Preserving the Open Internet Broadband Industry Practices*, Comments of AT&T Inc., filed on January 14, 2010, at 131-32. As AT&T notes, the fact that common law common carriage originates in the law of bailments only magnifies broadband providers' claims: "under the common law, a bailee assumes special duties to care for packages that need special care. Here, broadband providers seek the right to act as bailees in this respect—to sell special packaging ([Quality of Service] enhancements) to merchants (application or content providers) that wish to contract for extra care in the delivery of their services to recipients. And the Commission's proposed line-of-business restriction would paradoxically bar them from doing so." *Id.* at 132.

¹⁸³ *Heart of Atlanta Motel, Inc. v. United States*, 379 U.S. 241 (1964).

¹⁸⁴ *PruneYard Shopping Center v. Robins*, 447 U.S. 74 (1980).

¹⁸⁵ See, e.g., *Nollan v. Calif. Coastal Comm'n*, 483 U.S. 825, 831 (1987).

neutrality regulations in at least two ways. First, net neutrality reaches beyond the access rights of end-user consumers. The Civil Rights act and the state constitutional right in *PruneYard* hold simply that if, as an owner, you invite the public generally to use your property, you must do so in a nondiscriminatory manner. But the Open Internet initiative is only indirectly concerned with end-user customers: as Phil Weiser has noted, all sides of the debate agree that broadband providers can discriminate among end-user consumers, at least in the sense of charging consumers different prices for different speeds of retail internet access. Rather, net neutrality is concerned about the relationship between broadband providers and content and application providers, the “manufacturers” in the internet economy who produce the goods that consumers seek.

To use an offline comparison, net neutrality is akin to requiring Costco by to carry any and all merchandise that any vendor wishes to sell in the store. Furthermore, the store is not allowed to charge for premium shelf space or other product placement, as is common in the retail sector, or otherwise profit directly from vendors’ sale of merchandise at the store. Costco can earn revenue only from its annual membership fees and the sale of private-label merchandise in the store, but it is under strict rules that preclude it from dedicating more or better shelf space to its own private-label merchandise than that of its competitors. From this revenue it must manage the store and pay all overhead expenses, in a manner that does not threaten the ability of other vendors to sell their goods at the store.

Put in this perspective, one quickly sees how net neutrality differs in magnitude from traditional public accommodations laws. *Heart of Atlanta Motel* and *PruneYard* did not involve vendor access to retail establishments; they simply held that once an establishment opened its property to consumers, it could not discriminate against particular classes of consumers on the basis of factors unrelated to the operation of the establishment (such as race or political views). In other cases, the fact that a claimant’s facilities are available for public use generally has not precluded the court from finding a taking where the occupation is accomplished by an entity that is not an end-user consumer, or whose use does not lie within the scope of the public invitation.¹⁸⁶

Moreover, the public accommodations cases are distinguishable because of the retained authority of the property owner to control the conditions under which the public accesses to the property. In *PruneYard*, the Court refused to find a taking in part because the mall owner could still “adopt[] time, place, and manner regulations that will minimize any

¹⁸⁶ See, e.g., *Gulf Power Co. v. United States*, 187 F.3d 1324, 1328 (11th Cir. 1999) (fact that consumers generally use power company’s network to receive electricity does not preclude taking claim based on statute granting cable companies access to power company utility poles to install cable lines).

interference with its commercial functions.”¹⁸⁷ Because of this retained control over the terms of access, the Court explained that “the fact that they may have ‘physically invaded’ appellants’ property cannot be viewed as determinative.”¹⁸⁸ The *Loretto* Court distinguished *PruneYard* on precisely this basis, noting that *PruneYard* was not a physical taking because of the restrictions that the mall owner could place on protesters to “minimize interference with the owner’s commercial functions.”¹⁸⁹

But of course, the net neutrality restrictions do not permit broadband owners a comparable level of retained control over the terms of third-party access—indeed, the very purpose of net neutrality is to deny network owners the ability to place “time, place, and manner regulations that [would] minimize any interference with its commercial functions.” The purpose, rather, is precisely to interfere with the owners’ commercial functions, at least insofar as those commercial functions include charging for access to end-users or delivering bandwidth-intensive applications to end-users over congested networks. As a result, the breadth of the proposed net neutrality rules likely takes it outside the scope of the public accommodations laws held to be permissible under *Heart of Atlanta* and *PruneYard*.

III. RAMIFICATIONS FOR THE OPEN INTERNET INITIATIVE

Broadband providers thus have a strong argument that the Commission’s proposed net neutrality rules effect a physical taking under *Loretto*. The physical invasion of an electronic network by a third-party signal is legally and physically no different from the invasion of a rooftop by equipment, utility poles by foreign equipment, or a beachfront lot by tourists. Each involves strangers receiving an unfettered right of access to a defined area of private property over the objection of the property owner, in a way that infringes upon the owner’s ability to exclude from, use, or dispose of the space so occupied. Of course, as *Cablevision* notes, courts may have some conceptual difficulty extending the *Loretto* doctrine to electronic networks, despite the fact that the same property rights are at stake in both scenarios. In that circumstance, broadband networks may fall back on a more general regulatory takings claim under *Penn Central*, which is arguable but not as strong under existing case law.

But broadband providers need not have an airtight Takings Clause claim before they can impact the present net neutrality debate. The fact that the proposed rules present a “serious constitutional question” suggests that the Commission should reconsider its decision to promulgate net neutrality

¹⁸⁷ *PruneYard*, 447 U.S. at 83.

¹⁸⁸ *Id.* at 84.

¹⁸⁹ *Loretto*, 458 U.S. at 434.

restrictions without a clear mandate from Congress. The deference normally afforded to administrative action under *Chevron*¹⁹⁰ is inapplicable where the administrative action raises serious constitutional issues.¹⁹¹ The Supreme Court has explained that

Where an administrative interpretation of a statute invokes the outer limits of Congress'[s] power, we expect a clear indication that Congress intended that result. This requirement stems from our prudential desire not to needlessly reach constitutional issues and our assumption that Congress does not casually authorize administrative agencies to interpret a statute to push the limit of congressional authority.¹⁹²

The canon of constitutional avoidance carries particular importance in the context of the Takings Clause, where a successful claim would require the payment of just compensation and thus would raise separation-of-powers concerns. In *Bell Atlantic*, the D.C. Circuit explained that “[w]here administrative interpretation of a statute effects a taking, use of a narrowing construction prevents executive encroachment on Congress’s exclusive powers to raise revenue and to appropriate funds.”¹⁹³ *Bell Atlantic* involved a Fifth Amendment challenge to an FCC access rule, promulgated without clear authorization from Congress, that required local telephone companies to grant competitors access to their networks. The D.C. Circuit did not resolve the Fifth Amendment claim, because it did need to do so: rather, it found that because the petitioners’ claim “fairly implicates” the Takings Clause under *Loretto*, and the FCC lacked express authority from Congress to mandate access, the rule was held to be invalid.¹⁹⁴

Here, it is important to note that Congress has *not* clearly authorized the FCC to impose net neutrality rules on broadband providers. If anything, the fact that Congress has considered but failed to pass a series of net neutrality bills since 2005 (most recently, a bill co-sponsored by then-Senators Clinton and Obama during the 2008 presidential election) suggests

¹⁹⁰ *Chevron, U.S.A., Inc. v. Nat. Resources Def. Council, Inc.*, 467 U.S. 837 (1984).

¹⁹¹ See, e.g., *Bell Atlantic Corp. v. FCC*, 24 F.3d 1441, 1445 (D.C. Cir. 1994).

¹⁹² *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*, 531 U.S. 159, 172-73 (2001); see also *INS v. St. Cyr*, 533 U.S. 289, 299 (2001) (“[W]hen a particular interpretation of a statute invokes the outer limits of Congress’ power, we expect a clear indication that Congress intended that result.”); *Jones v. United States*, 529 U.S. 848, 851 (2000) (“[C]onstitutionally doubtful constructions should be avoided where possible.”).

¹⁹³ *Bell Atlantic*, 24 F.3d at 1445.

¹⁹⁴ *Id.*

that Congress is at best unconcerned about, and at worst hostile to, such a proposal.¹⁹⁵

The Commission claims authority to adopt such rules only pursuant to its ancillary jurisdiction under Title I. But the language of Title I does not clearly authorize the FCC to impose net neutrality restrictions that may take broadband providers' property rights. Indeed, Title I does not clearly give the FCC authority to regulate the Internet at all. Title I serves as an administrative "necessary and proper" clause; it gives the FCC limited jurisdiction "over matters not directly addressed in the Act when the subject matter falls within the agency's general statutory grant of jurisdiction and the regulation is 'reasonably ancillary to the effective performance of the Commission's various responsibilities.'"¹⁹⁶ In the proposed rules, the Commission explained that it has explicit authority to regulate voice and cable video communications, and because these services are increasingly provided over the Internet, the Commission can regulate broadband access as a matter "reasonably ancillary" to its voice and video duties.¹⁹⁷ The Commission recently made a similar argument to the D.C. Circuit when defending its Comcast order, and although the decision remains pending, even net neutrality proponents remarked upon the skepticism that the panel showed for the Commission's jurisdictional claims.¹⁹⁸ Indeed, the court has shown increasing skepticism in recent years for the Commission's attempts to promulgate extensive regulations under its Title I ancillary jurisdiction without express Congressional approval.¹⁹⁹

At the very least, the rules implicate a "serious constitutional question" whether net neutrality constitutes either a physical taking under *Loretto* or a regulatory taking under *Penn Central*. When coupled with the ongoing dialogue regarding the First Amendment implications of the proposed rule and the D.C. Circuit's skepticism regarding the scope of the agency's Title I authority to regulate internet access, the Commission would be better served to seek explicit Congressional authority before carrying the net neutrality project forward. Without such authority, *Bell Atlantic* and

¹⁹⁵ See, e.g., Debate Leaves FCC With No Defenders on Comcast-BitTorrent Order, TR Daily, March 3, 2010, available at 2010 WLNR 4453724 ("Former U.S. Solicitor General Gregory Garre...suggested that the FCC ...ask[] Congress for explicit authority to regulate Internet traffic management - which could prove difficult since previous efforts by lawmakers to pass such regulation have failed.").

¹⁹⁶ See Net Neutrality NOPR ¶ 83 (quoting *United States v. Southwestern Cable Co.*, 392 U.S. 157, 172-73 (1968)).

¹⁹⁷ *Id.* ¶ 84-85.

¹⁹⁸ See, e.g., *Debate*, *supra* note 195 ("Even the ostensible defender of the FCCs attempt to impose such regulation in its 2008 order in the Comcast-BitTorrent case ... criticized the FCCs legal justification for its exercise of ancillary jurisdiction as very weak. Gigi Sohn, president and co-founder of Public Knowledge, said that in some respects she is not even tempted to defend the FCCs position, because she does not think that agencies should have unbounded authority, for which the ancillary jurisdiction argument could serve as a basis.").

¹⁹⁹ See *American Library Ass'n v. FCC*, 406 F.3d 689 (D.C. Cir. 2005) (invalidating FCC rules regarding broadcast flag technology as beyond agency's Title I ancillary jurisdiction).

other decisions suggest that the proposed rules are unlikely to withstand judicial review.

IV. CONCLUSION

At its core, net neutrality seeks to eliminate broadband providers' rights to discriminate among third-party content providers that seek to distribute material on their electronic networks. The policies implicated by such restrictions, and the effect upon the retained property rights of network owners, are issues that directly implicate the Takings Clause, because they extinguish broadband providers' right to exclude and appropriate the use of such networks for the public. This paper demonstrates that the Court's physical takings jurisprudence applies to electronic networks, and that the Commission's effort to impose net neutrality rules effects a taking under this line of cases, which cannot be accomplished without providing just compensation.

But a court reviewing the inevitable challenge to the Commission's proposed rules need not resolve whether net neutrality actually effects a taking under *Loretto* or the more ad-hoc *Penn Central* test. It is sufficient to note that the issue presents a serious constitutional question, which implicates the presumption that Congress "does not casually interpret a statute to push the limit of congressional authority." This presumption, coupled with ongoing First Amendment concerns and the courts' general skepticism regarding the scope of authority the Commission claims under its Title I ancillary jurisdiction, should prompt the FCC to reconsider its effort to promulgate net neutrality rules in the absence of explicit congressional approval. A refusal to do so risks judicial invalidation of Chairman Genachowski's Open Internet initiative.